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ABSTRACT

The chapters in this book originated as open lectures and each reflects the occasion on which it was presented. The three chapters are: "Grammar, Society, and the Noun"; "The Context of Linguistics"; and "Ideas about Language." Chapters 1 and 3 were given as inaugural lectures that celebrated the foundation of new departments of linguistics. Chapter 2 was given at a roundtable discussion and relates to the particular stage of development of the study of linguistics in the United States at that time. Chapter 1 addresses language from the outside, with the focus on language in the social environment. It concludes that language cannot be interpreted without consideration of its place in the future of human society. Chapter 2 addresses the existence of linguistics as a field and a theory; it also highlights the social context of language and its future social accountability. Chapter 3 offers a brief history of the field of linguistics and suggests that a semiotic perspective enables one to see language in the context of the social construction of reality where each language has its own logic, rhetoric, and esthetics. (Contains 89 references.) (NAV)

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Occasional Papers Number 1.

AIMS AND PERSPECTIVES IN LINGUISTICS

M.A.K. HALLIDAY

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Applied Linguistics Association of Australia

Aims and Perspectives in Linguistics

by

M.A.K. Halliday

Professor of Linguistics, University of Sydney

Occasional Papers Number 1

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FOREWORD

The chapters of this book originated as open lectures. Each one was given on a separate occasion, the first in London, the second in Washington and the third in Sydney. The first and the last were separated by almost exactly ten years.

Each chapter therefore to a certain extent reflects the occasion on which it was presented. The first and last have a similar context: not only were both given as 'inaugural lectures', but both celebrate the foundation of a new department of linguistics, the one at University College London, the other at the University of Sydney. By contrast, the middle chapter began as a talk given at a Georgetown Round Table Meeting, and relates rather closely to the particular condition of linguistics in the United States, where, in many universities, linguistics departments had existed for some time, but had developed, for the most part, a highly specialised disciplinary base.

Some minor alterations have been made, discarding certain matter that would be intelligible only in its original context; otherwise, the papers are unchanged. I am most grateful to the original sponsors for allowing them to be published here:

University College London

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It is a source of pleasure to me that they are now being published by the Applied Linguistics Association of Australia. I hope they will contribute towards some kind of a picture of the place of linguistics in contemporary scholarship, and of the relevance it has - or could have - to the life of the community.

Sydney, May 1977. M.A.K. Halliday.

GRAMMAR, SOCIETY AND THE NOUN.

The central concern of linguistics is the systematic study and interpretation of language. But in the course of this study there are times when we need a broader framework than that which is provided by linguistics itself, at least in its narrower academic sense. My aim here is to look into certain questions of language from the outside, with the focus on language in its social environment. The questions I have chosen fall within an area that might be called 'sociogrammar' - or perhaps 'sociosemantics', since grammar is a mode of entry to the study of meaning. In the study of human behaviour, and not only linguistic behaviour, there are some questions that can, it seems to me, be posed only in sociolinguistic terms; and for our purposes the definition of sociolinguistics as 'the study of the relations between linguistic structure and social structure' can be allowed to stand, provided that 'structure' is taken in its broadest sense, to include the underlying semantic patterns of language on the one hand and systems of cultural behaviour and of knowledge on the other. For while some sociolinguistic questions arise from an examination of co-variation between linguistic and social phenomena, others face the linguist in the course of his own work.

There are many questions which a linguist may think of asking for himself for which he has to go outside linguistics to begin looking for an answer: for example, concerning the function of language in establishing and maintaining value systems and systems of social control, and in defining the roles which for the individual, child or adult, make up the role set that constitutes his identity - not only his identity from the point of view of society but also the identity he regards as his 'self' (note in passing that in English 'you' and 'I' possess our 'selves', while 'he' and 'they' are merely qualified by theirs - we say myself, yourself but himself, themselves). The late J.R. Firth, Professor of General Linguistics in the University of London, wrote in 1950:

> *The meaning of person in the sense of a man or woman represented in fictitious dialogue, or as a character in a play, is relevant if we take a sociological view of the personae or parts we are called upon to play in the routine of life. Every social person is a bundle of personae, a bundle of parts, each part having its lines. If you do not know your lines, you are no use in the play ... [Linguistics] is mainly interested in persons and personalities as active participators in the creation and maintenance of cultural values, among which languages are its main concern.*

As an example of the sort of enquiry Firth envisages, involving both a precise formulation of certain questions and an experimental approach to their solution, might be cited the work of Basil Bernstein, of the University of London Institute of Education. Bernstein's starting point is the differential response of children of different types of social background to educational opportunity. Asking 'The behavioural implications of the physical and social environment are transmitted in some way to the child. What is the major channel for such transmissions?', Bernstein suggests that the answer must be sought in a

sociolinguistic study of 'the interrelationships between social structure, forms of speech and the regulation of behaviour' (1964). In other words, he finds it necessary to confront linguistic and sociological findings in order to be able to understand the social processes involved.

Bernstein's questions arise out of a sociological enquiry: but the linguist seeking to understand the nature and functioning of the linguistic system will find himself asking questions that are not unrelated or dissimilar to these. It has sometimes been said that linguists have shown too little interest in the social background of language, although it might be argued that, if they had not concentrated, almost exclusively for a time, on the internal workings of the linguistic system in its specific manifestations in different languages and dialects, such further questions could never have been broached. Be that as it may, it seems likely now that in the coming decades some of the most fundamental work on language will take the form of sociolinguistic enquiry. This may be taken to include both the comprehensive, qualitative approach envisaged by Hymes in his programme for a 'comparative ethnography of communication' (1964), which implies the 'structural analysis of the cultural behaviour of a community', and the microscopic, quantitative methods of Labov in which 'hypotheses are established by observing the co-variation of objectively defined variables' (1964), for example hypotheses about the status of individual phonemes in the New York dialects. From the linguist's point of view, the focus must be allowed to shift.

In this connexion we might note Fishman's apparently fairly confident hope that 'the linguist aware of the social context of language will lose his naïve sociological outlook' (1967):

> *The linguist might realize that categories represented by 'natural' human groups (whether these be generational, religious, ethnic, educational, occupational, etc.) ... merely represent the palest reflection of life's complexity. The sociologist's categories and strata are no more than handy ways of getting at recognizably different rates of various social behaviours: values, attitudes, socialization patterns, leisure activities, political behaviours, interactions across group boundaries, etc.*

Fishman also expresses the hope that sociologists will lose their naïve linguistic outlook; and while applauding both these sentiments I should wish to add that the ethnographic study of folk linguistics, such as can be observed for example in the 'Eng. Lit.' classes in our schools, is itself a valuable area of sociolinguistic research, just as the study of folk sociology is an important branch of the sociology of knowledge. Professor Randolph Quirk, in describing the aims and scope of the Survey of English Usage which he is directing at University College London, wrote: 'One should aim at seeing educated usage as far as possible against the background of educated reaction to usage' (1960). The study of any culturally determined behaviour involves the study of its description and evaluation by the culture.

One of the lessons of sociology is that all knowledge is folk knowledge, and all science folk science; there are merely different folk, and any one of us may include among our roles different levels of folk membership. Ever since Schliemann discovered Troy we have been being encouraged to

believe in our own mythology: and the danger nowadays, at least in linguistics, is not so much one of a false dichotomizing between myth and truth as one of failing to keep different mythologies apart. Now I want to take, on this occasion, a folk linguistic standpoint: to start from a statement of a kind often made about language, and to ask what questions and assumptions lie behind it. This particular example is of something that is said not only about English; and that is usually couched in general linguistic terms with at least typological and perhaps universal implications. But the discussion will relate to English, since that presumably is our common language here if we have one - we may not in fact understand each other but we have to keep up the pretence, since it is a faith in communication, rather perhaps than communication itself, that marks our claim to social interaction.

In his well-known *ABC of Plain Words*, under the entry headed 'Abstract words', Sir Ernest Gowers writes (ascribing the sentiment to Mr. G.M. Young): 'an excessive reliance on the noun at the expense of the verb will, in the end, detach the mind of the writer from the realities of here and now, from when and how and in what mood the thing was done, and insensibly induce a habit of abstraction, generalization and vagueness' (1951). This is an example of the formulation of a very general attitude to what Rulon Wells, in his summary of such attitudes, calls 'nominal style' or 'nominality' (1960). (One might also add that it is a good example of what it is criticizing, containing as it does, aside from linguistic technical terms, eight abstract nouns.) Two questions may be asked: first, what is this 'nominality', or 'nominal style', and second, what are the reasons for it? It is not something unnoticed by linguists: but it is also, unlike many features of English, something of which there is a general cultural awareness, and which is widely subjected to popular linguistic criticism, an activity at which the English excel. It is thus not only part of our cultural knowledge but also a determinant of cultural behaviour.

Nominality, we may assume, has something to do with nouns. At the simplest, it might be merely a matter of the number of nouns per running words of text; but in fact it is easy to show that it is not, and it is likely therefore to involve either, and probably both, of two other factors: some entities other than simple nouns, and some aspect of the functioning of nouns (and of the other entities of these can be specified) rather than merely their density of occurrence. It is often suggested, moreover, that the features referred to in this way are such as to distinguish Modern English, or at least some varieties of it, from any or all of: earlier stages of the English language, other styles of contemporary English, or other languages.

In one sense, rather superficial but perhaps not totally irrelevant, it may be true that the noun is very much in the air, so to speak. Among other things, nouns are used to name classes of objects: and with every advance in technology there are likely to be more classes of object to be named. A few may disappear, like trams, although even some of these are still talked about; but many more come into existence, and the language has to make provision for them. Not that every time a new machine part is designed a new word of the class 'common noun' is added to the vocabulary. There are various ways of meeting this need, as described in studies of industrial lexicology: an existing lexical item, for example, may be transferred through formal or functional analogy, like the word *goose-neb* (goose's beak) introduced for a part of the loom by early immigrants to the towns and preserving for them a linguistic shadow of their cultural past. In modern

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English the preference is rather for recursively structured nominal compounds: we keep up with the technological times by devising forms such as those described by Joan Maw (1963) in her study of the instructions issued to fitters of gas appliances: *flue pipe support strap*, *gas pressure test nipple* and (an invented one on the same model) *main burner oil feed adjustment cover retaining screw*. This tendency is then reinforced by the use of similar structures in headlines, as an example of which we could construct *tourist holiday coach death crash enquiry verdict appeal decision sensation*. Such inventions may be monstrous, but we have no difficulty in knowing how to pronounce them.

Compounds of this kind are built up structurally by a linear process of regressive bracketing (bracketing associating to the left), in which the addition of each new item puts a bracket round all those that have preceded it. The rightmost item is the head of the structure; when a further item is added to it this has the effect of making it a modifier. Such a pattern yields a taxonomy, going from most specific, on the left, to most general on the right: a form like *flue pipe support strap* implies that we can ask 'what kind of strap?' (there will be other kinds), 'what kind of support strap?', and so on. There may be some internal bracketing, but if so this merely inserts either a co-ordination or a sub-structure of the same type.

This form of the structural organization of lexical items is reminiscent of the systematic taxonomic organization of the lexicon itself. The lexicon of a language can be viewed at least partly as a set of taxonomies, or even perhaps as a single taxonomy. Roget's *Thesaurus*, for example, could be interpreted as a ten-level taxonomic arrangement of the lexicon of English, though the nodes are in fact not named (they are labelled where referred to at all); and sociolinguistic studies of folk taxonomies suggest that some taxonomic naming is a universal feature of the organization of lexis. It seems moreover that this form of organization is very early learnt by the child: as he masters the class-naming principle he also quickly understands that some classes include other classes: the class of *spoons* includes that of *teaspoons*, that of *men* includes that of *uncles* and so on. But the manifestations of this organization, and its relation to syntactic patterns, vary considerably among different languages. It is noticeable that nominal compounds such as those cited above do not reflect any arrangement of their own constituent items in a lexical taxonomy, since almost any of these can be more or less specific than any other: beside *gas pressure test nipple* we could have *gas nipple test pressure*, *nipple pressure gas test* and so on, with no added linguistic discomfort to the layman.

Some languages seem to reveal the taxonomic organization of the lexis more systematically and more explicitly than others: and sometimes in curious ways. Robert Dixon's (1970) work on Dyirbal, an Australian language, shows that the taxonomic structure of the vocabulary of the daily language is partially, but quite unambiguously, retrievable from correspondences with the mother-in-law language: in talking to one's mother-in-law one must preserve a decent level of generality. In Chinese, the taxonomic organization of the nominal section of the lexicon is more apparent than is that of English, since the greater part of it is organized into sets of compound items having a specific followed by a general component, with the latter also occurring alone as the corresponding generic term: most nouns, in other words, fall into sets like English *dessert spoon, teaspoon, ..., spoon*. This provides the model for most new coinings, as observed already by Samuel Kidd, Professor of Chinese at University College London, from 1837 to 1843. In his *Lecture on the Nature and Structure of the Chinese Language* (1838) Professor Kidd wrote:

> *All languages require new terms, or new combinations of words, to express new ideas ... [In Chinese, this] object might ... be attained by periphrasis; as 'a watch' is designated she shen peaou, 'time indicator'; steam vessels ho ke chuen, 'fire breath ships'; and a steam carriage would be understood by tsze tung chay, 'self-impelling vehicle'. [This] mode of conveying new ideas is the only one accessible to foreigners, unless they should attempt to spell their own names of things by native characters, which would be very barbarous and unsatisfactory.*[1]

'Spelling one's own names of things by native characters' is perhaps rather an unusual way of referring to linguistic borrowing, viewed as it is from the standpoint of the lender; but Professor Kidd is quite right in observing that Chinese does not extend its vocabulary significantly in this way. The history of technology in China (and the Chinese were at the forefront of technological progress throughout most of human history up to the sixteenth century) is at the same time a history of a part of the Chinese language; new terms were created by the formation of nominal compounds from native Chinese elements in a way which both exploited and reinforced the explicit taxonomic structuring that has been mentioned as characteristic of nouns - though absent from other word classes - in the Chinese lexicon. Joseph Needham has referred to problems caused by certain gaps and skewnesses in technical nomencalture; what Malinowski called the 'gaps, gluts and vagaries' of terminology. Needham (1958) mentions

> *a memorial made by Su Sung to the Emperor towards the end of the 11th century when he was presenting his astronomical clock-tower to the throne. He [Su Sung] ends by saying: '... in any case, if we use only one name all the marvellous uses of these three instruments cannot be included in its meanings; yet since our new instrument has three uses, it ought to have a more general name...' In other words, with its mechanized armillary sphere, celestial globe, and jackwork, it should not be called just a hun hsiang or a hun i; it ought to have some more general name such as hun thien [chi] which we might translate as 'cosmic engine': '... and we are humbly awaiting your Imperial Majesty's opinion and bestowal of a suitable name upon it.' That was in 1092, but the Emperor had no ideas whatever. As a matter of fact, he was only about seventeen at the time, but in any case he did not produce a name, and nobody else did, so the mechanical clock did not get one, and the arrival of a new term six centuries later gave rise to the idea that there had arrived a new thing.*

It is interesting that both these sinologists have used their understanding of the principles of naming in Chinese to create new Chinese words; and one wonders whether there is any evidence to suggest that it is easier for a Chinese child to predict new names, and to construct hierarchies of classes of objects, than it is for a European child. English, with its relative lack of explicit taxonomic ordering, could seem to a Chinese rather inadequate as a medium of technological research and communication; and the irrelevance of this observation is perhaps a useful comment on the views sometimes put forward about the languages of under-developed countries, often by native speakers of these languages, as being unfit for use in science, education, law, or government.

It is sometimes suggested that the complex bracketing of English and Chinese nominal compounds leads to excessive structural ambiguity; but this is merely

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one of many forms of the structural ambiguity that is found in all languages. Headlines are often cited in this connexion, like *nude murder detectives* and *police drink test tables review*: these are more noticeable, because they tend to strike us without context - the owner of the newspaper leaves the train before we can read the smaller type. But there are many other sources of structural ambiguity in English besides these complex nominals. The texts from which I cited some of the earlier examples also contained *to replace, insert the lip on the top of the front panel behind the return flanges at the top edge of the opening in the main casing and remove battery holding down bolts or hook bolts at both ends of the battery*, each of which may represent any of about a hundred possible structures. This sort of ambiguity is normal in language, and nominal compounds are no exception: there is usually only one possible interpretation in the context (provided one includes here the social context: in this case the reader must have been trained as a gas fitter), although it is true that headlines and other display languages have to a certain extent their own 'economy grammar' dictated by the simultaneous requirement of communicative effect and extreme brevity.

Among other English naming devices is the brand name, which has a rather special linguistic status. Etymologically, a brand name may be more or less anything: proper noun (*Morris, Ajax*), possessive proper noun (*Kellogg's*), common noun, count or mass (*Embassy, Surf*), modified common noun (*Double Diamond, Gold Leaf*), or not a noun at all (*Digestive, Startrite*); it may be an existing item of the language, like the foregoing, with or without orthographic innovation, or an invention within the limitations of the phonological system, or anything in between. Syntactically, as pointed out by Geoffrey Leech (1966), 'there are signs that brand-names have an unstable syntactic function'. The brand name has some of the features of a proper noun - its modifiers are usually descriptive, not defining, for example - but more of those of a common noun: it is assigned count or mass status (*a Morris, some Ajax*; this assignment is independant of the status of the model where this is an existing common noun, cf. *some Tide*), and selects for specific or non-specific determiners *a, the*, etc. The brand name may play a significant role in the search for names for new objects, although there is wide variation here between different language communities. English is particularly prone to accepting brand names into the language: this may in the long term have its effect on the nature and functioning of the English noun, by contributing to a blurring of the distinction between common and proper, the extension of countability to all nouns, and a still greater tendency for interchange of membership between the noun and other word classes. It is possible to construct whole sentences in English in which every lexical item is a brand name, like *the dripolator needs brillo; let's just have some nescafé in the denby*.

So the simple common noun is certainly outnumbered, in modern English, as a device for naming classes of concrete objects. Proper nouns, as in brand names, nominal compounds and modified forms of various kinds (as in *vitreous enamel, locking nut, tin opener, spirit of salt*) are all widely exploited. What all such forms have in common is that, with minor exceptions, they take on all the syntactic potentialities of their parent class the common noun. This means not only the potentiality of entering into further compound forms and susceptibility to the various choices that are open to the English nominal group - all forms of determination and numeration - but also the set of functions which the nominal group may take on in the clause: subject, direct object, and a number of others. When function in the clause is taken into account, however, there turn out to be still further elements that behave in a noun-like way.

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It is for this latter reason that grammarians group together nouns, nominal groups (noun phrases), and nominalizations. The noun is the class of words (including compounds) that name classes of things: centrally, concrete objects and persons, but also abstractions, processes, relations, states, and attributes: whatever can stand for a pronoun, as Quine (1948) suggests ('Pronouns are the basic media of reference; nouns might better have been named propronouns'). Nominal groups are nouns plus their determiners and any other modifiers; while in nominalizations some element other than a noun, a verb perhaps, or a whole clause, has nominal status assigned to it. There is no sharp line, in English, dividing compound nouns from nouns plus modifiers, or the latter from nominalizations. So if scientists or others are said to write in a 'nominal style' (and nominals are no less relevant to poetry), this refers to the use of nominals of all kinds; and criticism of such a style does not necessarily mean that the critic has found more nouns per sentence than he likes. Rather otherwise, perhaps: what is objected to is more likely to be the use of nominalizations, since it is the nominalization for which alternative devices could be found, whereas there is ordinarily no alternative to the use of a simple common noun like *cat* or *carburettor*, except not to talk about cats and carburettors at all.

What are these alternatives, and what is the nature of the choice among them? There are certainly many ritual features associated with stylistic variation in language: features whose function is merely to signal a particular mode of linguistic behaviour. But it seems strange that nominalized structures, which are very often longer than the non-nominalized alternatives, should be so consistently preferred in uses of language in at least some of which brevity might be thought to be a virtue. The question that might be asked is whether the study of English grammar suggests anything in the way of motivation: whether there are any significant corollaries, within the language, of the phenomenon of being or behaving like a noun.

Other than in certain minor sentence functions, appellative, exclamatory, and responsive, the speaker of English structures his message around a verb. If we use the term 'process' as a general term for that which is designated by the verb, then two broad types of process are distinguished: action, including perception, as in *he threw the ball*, *he heard a noise*, and what we may perhaps call 'ascription', the assigning of attributes, as in *he is clever*. In many, though not all, respects action and ascription are alike: both must be located in time, with the same range of tense choices; both are subject to modality; and these and other similarities are what justify the introduction of a general term such as 'process' by which to refer to them both together.

If the process is of the 'action' type a distinction is made, at least in terms of potentiality, according to whether or not the action implies a goal. Hence the familiar distinction into transitive (goal-directed) and intransitive verbs. However, a cursory glance at a dictionary shows a large number of verbs assigned to both classes ('vb. trans. & intrans.'); and this is because the potential distinction, between implying and not implying a goal, is largely overlaid in modern English by an actual distinction according to whether or not a goal, or more accurately a goal feature, is present in the clause. Since with many, probably most, verbs this feature may be either present or absent, the potential distinction has relatively little significance, in the sense that it has very few 'consequences' (co-variants) elsewhere in the grammar of English. It is thus the clause rather than the verb that is transitive or intransitive. So although, for example, *ride* is trans-

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itive and *walk* intransitive, English does not show a grammatical difference according to type of action between the two halves of a sentence like *you ride and I'll walk*.

We could put this positively: the two clauses are treated alike in important respects. In particular, taking 'directed' action (action on a goal) is equated, in English, with enforcing non-directed action: *she's walking the horse* and *he's riding the bicycle* are structurally parallel, as shown by the fact that *he's opening the door* can be said to be like either of them ('he's doing something to the door' or 'he's making the door do something') and it makes no difference: *he's opening the door* is not an ambiguous sentence. So making someone do something is the same as doing something to someone, and there is a proportionality such that *we're selling cosmetics* is to *cosmetics are selling* as *we're running Jones for chairman* is to *Jones is running for chairman*. Reflexives, too, enter into this pattern: *she washed the baby* is to *she washed herself* as *she sat the baby on the settee* is to *she sat herself on the settee*, with *herself* optional in both cases.

In English, therefore, rather than two kinds of action, corresponding to transitive and intransitive verbs, we have really only one kind of action with which may be associated two different combinations of participants. Either one participant only is involved with the action, in which case his or its role is that of the person or thing, 'affected', or two participants are involved, one 'affected' and one 'causer'. To express this in terms of actor and goal: the 'affected' is the goal of a directed action (object of a transitive verb) or the actor in a non-directed action (subject of an intransitive verb); the 'causer' is the actor in a directed action (subject of a transitive verb). But the 'causer' is also the initiator of a non-directed action (subject of an intransitive verb used causatively), so that in an action of this type the 'affected' may be an enforced actor (object of an intransitive verb used causatively).

Every action, therefore, can be said to imply an obligatory 'affected' participant and an optional 'causer'; but it needs to be made clear in what senses the causer is optional. In grammar, as in sociology, a participant is to be thought of not as an individual but as an occupant of a role. In one type of clause, exemplified by *he stood up, he washed* (meaning 'he washed himself'), there is only one participant, occupying the role of 'affected'; there may be 'causation' involved, in the sense that the action is intentional, but in that case the two roles of affected and causer are combined in the one occupant (contrast these examples with *he fell down*, where there is no causer and thus *he fell himself down* is impossible). In other clause types the roles are discrete: the causer may then be specified, as in *she stood him up, she washed him*, or it may not be, as in *he was stood up, he was washed*. Here the distinction is that between active and passive clauses, the desire not to specify a causer being one of the principal reasons for choosing a passive: the great majority of passive in texts in modern English have no agent (Svartvik, 1966).

The basic pattern of organization in the English clause seems thus to be more readily describable not primarily in terms of action and goal but rather in terms of cause and effect. The variable is not 'is the action goal-directed or not?' but rather 'is the cause external to the action or not?' These two patterns may be called respectively the 'transitive' and the 'ergative'. In English, transitive and ergative co-exist: a distinction

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is found between verbs which tend to have actor and goal, the 'transitive' verbs, and those which tend to have only actor, the 'intransitive'; but the predominant pattern is the ergative one, since with very many verbs we have both the active-passive construction, with two participants, and the 'middle' construction with only one participant. This pattern cannot be generalized in terms of actor and goal, since the obligatory role, the affected, may be either goal or actor, and the optional one, the causer, may be either actor or initiator. So the roles of participants are defined primarily by causation: *x* is engaged in a process - is it caused by *x* or not? This contrasts with a transitive form of organization where the roles are defined by extension: *x* is engaged in a process - is it directed outside *x* or not? The ergative pattern appears clearly from the proportionality in pairs such as the following:

the clothes were washed	:	*the clothes washed*
the door was opened	:	*the door opened*
her hair's being grown long	:	*her hair's growing long*
the horse shouldn't be jumped	:	*the horse shouldn't jump*

where the distinction represents the speaker's choice whether to suggest external causation or not: those on the left imply that the role of causer is discrete from that of affected.

I have discussed this aspect of English more fully elsewhere (1967-68); here what is of interest is its significance for the understanding of nominality. If I may use 'transitivity' as a general name for this aspect of the organization of the clause, whether the basic pattern is transitive or ergative, then the significance of transitivity in this connexion is that it defines some of the roles which nominal elements may occupy. The notion of a role in grammar is not limited to persons; the occupant may be a person, an object, a concept, or - and this should be stressed here - anything else that is nominalized. In specifying these roles, therefore, we are making generalizations about the function of nominals in English. In addition to the two roles just mentioned, the affected and the causer, I shall refer briefly to some others, including certain roles defined not by transitivity but by another dimension of clause patterning known as 'theme'. First however it may be useful to ask how far this cause and effect pattern which I have referred to as the 'ergative' form of organization may be thought of as a significant characteristic of English in its own right, in the sense of whether it has any bearing on the speaker's awareness of processes and of the status of participants therein.

In his discussion of noun and verb as universals of language, Robins wrote (1952):

> *No longer can it be argued that since we all inhabit a world with a common metaphysical structure, our languages must exhibit a common structure of grammar. Rather we must say that since certain basic grammatical terms, with certain semantic implications, are found to be generally applicable over the ever-growing field of known languages, we are justified in inferring that the experience of human societies is similarly ordered.*

One might ask, bearing in mind the work of Whorf, whether if certain other grammatical terms are found to be variably applicable, to some languages

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but not, or not so centrally, to others, we are justified in inferring that the experience of human societies is differently ordered. The question might be paraphrased, in another terminological framework, as: is there a language-specific 'deep' grammar?

Underlying either of these is the prior question whether we are justified in inferring anything about the experience of human societies from the applicability or otherwise of grammatical terms to the description of their languages. If we give anything but a wholly negative answer, which is perhaps somewhat unconvincing, it is difficult to see why we should dismiss as irrelevant to human experience just those features in a language which are not found in all languages. In one of the most important discussions of linguistic theory in recent years, Hymes wrote (1964):

> *In structural ethnography, as in any discipline with the anthropological vocation to interpret both human differences and similarities [and here I should certainly want to include linguistics] ... a dialectic is mandatory in which neither facts nor categories speak for themselves, and in which the search for structure is never divorced from the search for the concrete.*

Pointing out that 'the comparative, or universal level, depends on the identificational as well as the contrastive properties of structural features within a system', Hymes thus argues for what he calls 'the concreteness of universals'. The point is well brought out by Lyons in a recent paper (1966) where, claiming that 'the noun is the one substantive universal of syntactic theory', Lyons goes on to say that 'nouns are primary, in the sense that they are linked referentially with "things" (in the "nuclear" instances)'; and later, in reference to an imagined language in which all nouns were derived from verbs: 'What is not conceivable is that the language in question could function, outside a rather limited range of situations, without the association between "things" and the nouns used to denote them becoming, not merely motivated, but CONVENTIONAL.'

The relevance to our underlying question seems clear, and indeed is stated clearly by Lyons:

> *... neither extreme nominalism nor extreme realism is an acceptable approach to this question [of 'linguistic relativity' ('Whorfianism')]. If there were no correspondence at all between the structure of language and the structure of the perceptual world, there would be no sense in the suggestion that language imposes a particular categorization upon the world ... [although] this fact ... does not imply that they are necessarily in correspondence in any particular instance.*

In the particular instance of transitivity in English, and granted the noun as a constant (though it should be noted at the same time that Whorf did not grant it; he wrote of Nitinat (1945) that ' the terms verb and noun in such a language are meaningless'), we are asking in fact whether the systematic patterning of nouns in the clause allows us to infer anything about the speaker's categorization of the perceptual world. If we think it does, this is significant whether such patterning is universal or not: as Hymes (1964) says, it would be absurd to claim that 'there could not have been one human culture until there were two'. But, equally, only if we think it does, does the question whether it is universal or not become of any interest.

In his discussion of the relevance of Whorf's views to the notion of synonymy, Quine remarked (1953): 'It is not clear even in principle that it makes sense to think of words and syntax as varying from language to language while the content stays fixed', although 'there are many basic features of men's ways of conceptualizing their environment, of breaking the world down into things, which are common to all cultures'. Whorf himself wrote (1941): 'It is in its constant ways of arranging data and its most ordinary everyday analysis of phenomena that we need to recognize the influence [language] has on other activities, cultural and personal'. He made it clear that such recognition could be sought only through a perspicuous and highly sensitive grammar ('a deep analysis into relations'); and he cautioned: 'I should be the last to pretend that there is anything so definite as a "correlation" between culture and language, and especially between ethnological rubrics such as "agricultural", "hunting", etc., and linguistic ones like "inflected", "synthetic" or "isolating"' (1941). Whorf perhaps had in mind here notions such as the 'stadial' theory advanced by Marr and his followers in the USSR, according to which language developed by stages corresponding to postulated stages of socioeconomic development, with for example parts of speech arising in conjunction with the social division of labour. The ergative construction, as it happens, played a prominent part in discussions of stadial theory (Meščaninov, 1949), being associated, in one account, with a primitive level of technology in which man was powerless in the face of action by external, natural (including supernatural) forces; in which he saw himself as an agency rather than an actor, as an intermediary rather than an initiator of processes and changes.

The term 'ergative' was first introduced by Dirr (1928) in reference to certain Caucasian languages, although the feature which it referred to had been recognized much earlier. Its use has been extended to a fairly wide range of phenomena in different languages: but according to Matthews (1953): 'In nearly all cases the ergative construction demands the presence of three elements: 1) a transitive verb, 2) an expressed object figuring as the grammatical subject, and 3) the logical subject denoted differently from the way it is when paired with an intransitive verb'. To paraphrase very roughly, in an ergative construction the subject of an intransitive verb is in some way or other, such as case, resembled by the object and not by the subject of a transitive verb. In many languages the ergative does not occur unrestrictedly but co-exists with a transitive construction and is itself limited to a certain aspect of the verb or to certain verb or noun classes (Allen, 1964). In using 'ergative' in the present discussion of English I am referring not to a construction but to a system: a system, however, characterized by the fact that within it the actor in an intransitive clause type resembles in its potentialities the goal rather than the actor of a transitive one, so that there are identificational grounds for suggesting an ergative-type distribution of roles into 'affected' and 'causer' rather than, or (at least) as well as, a transitive-type one into 'actor' and 'goal'.

One might here attempt to replace the Marrist formulation referred to above by one more along Whorfian lines, asking for example whether this form of clause organization tends to direct the attention of a speaker towards an explanation of processes rather than towards a classification of them in terms of their extension. If the ergative implies a notion of causation, by contrast with the transitive notion of action, does this supply as it were a magical-scientific component of clause meaning where the transitive supplies a technological? But whereas the Marrist hypothesis is at least partially verifiable (and can in fact be shown by counterexamples to be untenable), it is difficult to see how one would even set about verifying a hypothesis couched in this more Whorfian form.

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Such a hypothesis might be expected to be verifiable in terms of some culturally determined non-linguistic behaviour, on the lines of Firth's view of 'situational meaning': as Robins (1963), expresses it,

> *the situational level of analysis and situational meaning are distinct from other levels of analysis and meaning in that they involve relations with extra-linguistic features of the world at large and non-linguistic parts of the speakers' and hearers' culture.*

But, as Firth himself pointed out, any linguistically significant concept of 'situation' can only be sought in the most abstract terms, even when one is considering the context of situation of single utterances or units of discourse; much the more is this so if one is considering the 'situational meaning' of the underlying grammatical patterns of a language. We are concerned here with the language system; and the relevant 'non-linguistic parts of the speakers' and hearers' culture' will be embodied in systems of cultural knowledge, even if we might hope to find their reflexes in particular patterns and modes of behaviour.

In his concern with language typology, therefore, Whorf was surely right to switch the beam away from social structure on to the structure of knowledge; and if his suggestion of a link between Standard Average European grammatical concepts and the Newtonian model of the universe is not easy to evaluate (would the ergative perhaps supply an Einsteinian component?), it remains an interesting suggestion which, taken in the context of Whorf's work as a whole, is not without some hint of a direction in which evaluation might be sought. It has long been recognized in ethnolinguistic work that, while neither the structure of the universe nor that of society can be deduced from the study of a language, kinship and other terminologies are interpretable as cultural knowledge and are thus behaviourally relevant; there is nothing implausible in the search for a sociolinguistics of knowledge on a more macroscopic scale. Only, we do not yet know enough about the underlying typology of language systems; so that the questions of immediate concern are likely to be questions internal to language. In other words, the line of investigation leads in the direction of Whorf's language-specific 'deep' grammars, towards semantically significant generalizations about the grammars of languages which may serve, more adequately than do present descriptions, as linguistic evidence for any enquiry into language and cultural knowledge.

So it is time to get back to English, in the expectation that it will be the internal corollaries of a grammatical feature, its consequences within the language, that most directly reflect its significance and its validity. It seems in the present context, for example, that the ergative pattern differs from the transitive in more readily admitting other participant roles into a direct relation with the process; where the relation of nouns to the verb is one of involvement rather than one of extension there may be many different ways of being involved. In English we find as it were a clustering, around the verb, of variously related nominals, rather than a quasi-linear arrangement of one 'on either side'. In a sentence like *shall I play Mary some Bach?* it is not very clear how the participant roles would be distributed into an actor and goal pattern: one is tempted to suggest that not only the record player but even the electricity company would have some claim to be represented. In fact, and more seriously, in clauses like this one, or like *this book won't teach you much French*, or even *he left the house*, a number of fairly distinct participant roles are associated with the process, and the appropriate generalizations that can be made about them are by no means immediately obvious; but the occupants are all nominals (they

can, for example, all be subjects) and all have, like the affected and the causer, a sort of direct line to the verb which represents their direct involvement with the process.

We have considered only processes of the 'action' type; but when the process is what I referred to earlier as 'ascription' the general picture is still one of cause and effect: *she kept quiet, he kept her quiet* is very like *she sat down, he sat her down*. In other words, even an attribute is subject to a form of causation; and the attribute can thus enter into a clause of any kind as a by-product of the process: *he knocked him flat, run the water hot*. Interestingly - this is an aspect of the ergative patterning - only the central participant, the affected, can acquire attributes in this way; none of the others. The effect of this extension is that the attribute becomes itself almost another participant role in the process: it can be a nominal, as in *this will set you up a new man*, although at this level of abstraction the adjective in English is itself a kind of noun - the traditional classification into 'noun substantive' and 'noun adjective' reflects one level of structural organization.

Of the numerous verbs which can assign attributes, there is one verb which can have this as its sole meaning: the verb *be*. At the same time there is a second verb *to be* which has a different function, that of equating or identifying, as in *John is the leader*. Here *be* identifies one nominal with another, so that the two roles are those of 'identifier' and 'thing to be identified'; and since these roles are reversible in sequence (we can have JOHN *is the leader* or *the leader* is JOHN, the relation being one of equivalence and not of inclusion as with attributive *be* clauses), the identifying process is syntactically one of action rather than one of ascription; it is as if this *be* were a transitive verb. The identifying structure is one of the favourite clause types in many varieties of modern English. In a sample of two hundred clauses of contemporary scientific writing, taken from the texts analysed in the course of an investigation by Huddleston and others (1968), thirty-two are of this identifying type. An example is:

> *The conversion of hydrogen to helium in the interiors of stars is the source of energy for their immense output of light and heat.*

This represents perhaps the most nominalized form of communication; and the prevalence of clauses of this type is I think one of the diagnostic features of what is referred to as a 'nominal style'. The clause is structured into two nominalized segments, containing between them all the lexical items, and the one is then equated with the other. The 'process' is thus reduced to one of simple equation. But this clause type is no more than an extreme form of the very general pattern whereby a cluster of assorted nominals is linked each to the other by a verb whose function is little more than that of glue: it holds them together. What we have been calling the 'process' is then merely a relation among objects, the elements that designate processes being, along with everything else, nominalized. In Whorf's terminology, such processes are 'objectified': that is, patterned on (some aspect of) the outer world rather than on our subjective experience of them as processes. In this case the model is the outer world of concrete objects (including, as I shall suggest below, persons, so that this 'objectifying' includes 'personifying').

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Such objectification may be achieved simply through the use of process nouns, of which there are many, like *dawn* and *song*. So instead of *they danced* we prefer to say *they did a dance;* instead of *they dined, they had dinner;* instead of *they erred, they made a mistake;* instead of *he contended that they had conspired, his contention was that there had been a conspiracy.* It is no wonder that Basic English is able to operate with only eighteen verbs. Or it may be achieved through nominalizations; and here there is no limit to the range of concepts that can be brought within the nominal compass, since a whole clause, or any part of it, can be nominalized.

We may here take a very brief glance at what is perhaps the most important concomitant of nominality in English: its relation to the structure of the English clause considered as a message, as a piece of communication. In his study of the language of Dickens (1959), Quirk pointed out the timelessness, the 'oppressive simultaneity' as he expressed it, of a narrative in which 'entirely verbless sentences ... are placed in a network of sentences whose verbs are participles'; one of the features of nominalized structures is that within them marking for tense and person is, or may be, avoided, and Wells (1960) noted that this is sometimes advanced in defence of a nominal style. But there is also a more positive side to the picture: nominality opens up other realms of choice which are not accessible without it.

We have seen that the effect of nominalizing something is to bring it into structurally immediate relation with the verb; and, to the extent that the verb is itself only a relator, thereby with other nominals. Now the English clause is structured not only in terms of participant roles but also, and independently, along a different dimension in which roles, or functions, are assigned as components of a message. There is a 'theme' - what is being talked about; a 'focus' - what is being presented as the main item of information; and so on. These roles are freely combinable with those of affected, causer and the like, so that any nominal element can take on any one of them; but they are not all freely combinable with the functions of non-nominal elements in the clause. There are thus more different ways of structuring the information in a clause like *the announcement of his resignation put an end to the discussion* than there are in, for example, *because it was announced that he had resigned they stopped discussing.* The distribution into identifier and identified is itself a powerful device for the structuring of information: it is no accident that the slogan *what we want is Watney's* lasted very much longer - no doubt it turned out to be more effective in promoting the sale of beer - than the *we want Watney's* which it superseded.

The English nominal style, whatever one's feelings about it, may thus perhaps be seen in the light of its associations with the grammatical organization of the English clause: with the functions that are open to nominal elements on the two principal dimensions of clause structure: the cause and effect dimension, that of 'transitivity', and the communicative dimension which I have elsewhere (1967-68) referred to as 'theme'. On both these dimensions, nominality means freedom of movement. When processes, qualities, states, relations, or attributes are 'objectified' they take on the potentialities otherwise reserved to persons and objects. I should like as a final note to look briefly from a different angle at one particular instance of this 'objectifying', considering here the noun in the language of social relations.

The use of nouns to express relations is regular in the functional terminology of mathematics and the sciences, including linguistics where for example the noun 'subject' expresses a relation 'is subject of'. This phenomenon is not

restricted to technical discourse, and it is the basis of the language of social relationships. One instance is that of kinship terminology. We take it for granted that terms like *father* and *parent* should be nouns, although as Lamb (1965) has shown, a linguistic analysis of kinship terminology suggests that all semantic components of kin terms, except those of sex, are in fact relational: not 'parent' but 'is parent to'. The meaning of *father* is defined by the relationship 'is parent to' plus the non-relational component 'male'.

The nominalization of social relationships by the naming of the occupants of the roles they define is not confined to kinship systems; it appears in relationships derived from social systems of all kinds, as in *boss, pupil, friend*. Some such nouns are deverbals, like *teacher, employee* - note the distinction between *he taught me* 'was a teacher to me' and *he taught me* 'involved me in the teaching process, caused me to learn' - although such nouns tend to have a collocational life of their own distinct from that of their base verbs. That such relationships assign status is seen in the derivation of verbs such as *he bosses (people around)* 'behaves in the manner of one having the status defined by "is boss to"', showing that there is an expected behaviour pattern characteristic of the status in question, itself referred to by a noun *bossiness*. Sets like *father, fatherhood* or *paternity*, and *paternalism* give us nouns for the occupant of the role defined by the relationship, the status that role confers (including the status as institutionalized in the legal system) and the characteristic behaviour pattern.

The use of a noun to name the occupant of a social role is quite general and makes no distinction between roles defined primarily in terms of social relationships, like *father, friend*, or *tenant*, and those which are primarily occupational like *milkman* and *lawyer* and the numerous terms for roles in games, such as *goalkeeper*. A word like *teacher*, which may be either, shows the same sort of ambiguity that we found with *teach*. All these exemplify a general pattern whereby the language refers to a function by naming its occupant. In the case of social functions such nouns are characteristically accompanied, in English, by a possessive modifier: this refers to the other term in the relationship, as in *my father, my friend*, but is also commonly used when the roles are not relationally defined as in *my lawyer, my milkman*, thus giving such roles the linguistic status of social relationships.

The study of kinship terminologies, and of folk taxonomies in general, lends itself very readily to the drawing of rather naïve conclusions about the individual's experience of society, or other aspects of his environment, from the organization of the vocabulary. Nevertheless, the linguistic patterns are not wholly irrelevant. To use an over-simple illustration, a child may know very well that his father's brother and his mother's brother are differently related to him, while at the same time the word *uncle* does confer for him a common status on both, as well as on others that he knows are not related to him at all - just as when I find tigers labelled *cats* in the zoo I cannot help wanting to stroke them. One's experience is organized on many levels at once: the language has played a part in structuring it for us, not the less important because largely at a time in our lives that is now beyond the reach of recall.

Within language, nouns probably play the central part in building up the child's view of his environment. They name concrete objects, definable at one stage perhaps, experientially, as the class of 'droppables', things which

fall to the ground when released in the course of his experiments with gravity at the age of about one year, like *teddybear* and *sandwich*. Concrete objects and personal relationships are both central to the child's experience; and some, though not all, of the terms used to name the human beings in his environment fit in to the class of 'droppables', the concrete count nouns: an uncle can be singular or plural, possessed and numerated like a sandwich or a pencil, and therefore would presumably fall to the ground if some means could be found of dropping him. Of course uncles are grammatically distinct from pencils; they have different pronominal reference. Moreover we say *this pencil isn't mine* but not normally *this uncle isn't mine;* and whereas one *has* a pencil and also *owns* it one *has* an uncle but does not own one. But some of these refinements are probably learnt later; and one might cite here the sentence, from Elizabeth Bowen's novel *The Little Girl:* 'There were three or four popular fathers, and one uncle, vouched for by his owner as being funny'.

This is all lighthearted enough. But we should not perhaps ignore the linguistics of social roles, the grammar of the processes through which the child comes to define his own identity at the intersection of a network of social relationships. To understand the socialization process we need not merely to observe the ways in which parents talk to their children, answer their questions and so on, but also to consider how the forms of the language predetermine the framework within which this interaction takes place; to understand the linguistic system as the range of possible choices within which the speakers are operating. In the process of learning, for example, the distinction in English between common nouns and proper nouns, the child also learns that *mummy* is a common noun *(my mummy, hasn't Jane got a mummy?)*, while *Johnny* is not, so that there is a grammatical distinction between elder kin and others - peers, including coeval kin, and strangers. Any significance this may have in his conceptual development is irrespective of whether or not all other languages make the same distinction. All the various distinctions that the child learns to associate with nouns, such as common or proper, general or specific, count or mass, concrete or abstract, definite or indefinite, as well as the various roles occupied by nouns in clause structure, provide a part of the conceptual framework for his mental development, and thus for the formation of his ideas about himself and about society.

When Gulliver visited Lagado, on his voyage to Laputa, he found three professors engaged in a project for improving the language of their country. Phase I of the project was 'to shorten Discourse by cutting Polysyllables into one, and leaving out Verbs and Participles; because in Reality all things imaginable are but Nouns'. (Phase II was 'a scheme for entirely abolishing all Words whatsoever'.) We are not told whether the professors had their grants renewed - or how they managed to apply for them. But we do, as Swift implied, grow up in a highly nominalized environment; and while recognizing, and striving to avoid, a sort of vulgarized Whorfianism (for which Whorf himself would not be to blame) whereby language is held to imprison the whole of one's thinking, we may nevertheless need to enquire into the relation between language and man's view of society - not forgetting here his view of language, of words and things, since linguistically as well as culturally man is both the creation and the creator of his environment.

Linguistics, as Hymes reminds us, is the least independent of disciplines. The declaration of independence of linguists a generation ago was a prelude to significant advances; its aims were achieved, and times are different. But it is nonetheless a unified field, with its own range of tasks and

objectives; and we should perhaps be wary of any cleavage between for example a linguistics that looks to psychology as its nearest relative and one which looks to sociology and social anthropology. The psychologist, concerned primarily with human constants, or at least not culturally determined variables, may seek to make all languages look alike; the sociologist, concerned with the diversity of human cultures, is predisposed for languages to look different. Neither is wrong: all languages are alike and all languages are different. But this is not a simple dichotomy. We cannot simply say that all languages are alike underneath and different on the surface, and the work of Whorf is a useful reminder here. A grammar is not thereby less perspicuous because it embodies an empirical attitude towards the concrete universals of description. It is possible to conceive of a language in which uncles are verbs.

It is possible, that is, provided one is aware of language; and in our own culture, from force of necessity, this awareness is increasing. The philosopher's concern with the relation between natural and logical languages becomes crucial when one has to talk to a computer; and in fields of knowledge from sociology to theoretical physics problems arise of the limitations and preconceptions inherent in the form of a language. Such problems may be new ones for the scientist and the programmer; but for the poet they have always existed, as so well brought out by McIntosh (1966) in the discussion of Gerard Manley Hopkins and his 'continuous struggle to come to terms with a medium which he felt was fundamentally unsuited in certain ways to the expression of some of his deepest perceptions'. Once again the noun is in the front of the picture, just as it so often is, not surprisingly perhaps, in discussions at a more everyday level of linguistic awareness.

But it was perhaps misleading of me to start on this occasion from a folk linguistic observation (it will be clear, I hope, that 'folk linguistics' is not being used as a derogatory term). The generalizations I have been suggesting about English, in interpretation of the awareness many speakers of English have of the prevalence of nominal patterns, did not in fact result from an attempt to explain this awareness. They arose quite naturally out of the study of English grammar, within a framework based on the underlying notion of choice, in which the question being asked was a linguistic 'why?': 'why?' in its usual sense, in the social sciences, of 'what goes with what?'. What I was trying to explain was a set of internal features, at first sight unrelated to each other, that are found in the semantics of Modern English.

The questions of sociolinguistics, to return to the point from which I began, involve correlations of some kind between language and society. I have suggested that these may need to be approached through a consideration of correlations that are found within language itself. It is important therefore to keep both aims in focus. We cannot hope to relate language and society except on the basis of a sound interpretation of language as a system. But this in turn will be achieved only when we set out to answer questions that have arisen in an attempt to interpret language in the broader context of its place in human society.

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NOTES

1. The full quotation reads: 'All languages require new terms, or new combinations of words, to express new ideas. Perhaps the union of two or three existing symbols in one would be most agreeable to the genius of the Chinese. The same object might, however, be attained by periphrasis.' Kidd's first alternative reveals his misunderstanding of the nature of the Chinese script; cf. his (1841) criticisms of Du Ponceau (1838), and discussion in Halliday (1959, p.32 and n.4). Du Ponceau was, as it happens, right; Kidd was representing the current folk linguistic view (as held by westerners), although the fact that the Chinese never did adopt his first alternative might have been seen as convincing evidence against it.

2. Lyons (1966) argues that 'since ... the "ergative", in certain languages at least, is aspectually restricted ..., it is by no means certain that there is a "deep" structure difference between transitive and "ergative" constructions' (p.228 n.7). I would agree that it is by no means certain; but the fact that transitive and ergative constructions may co-exist in one language is no evidence against it.

3. There is considerable overlap of structural function between noun and adjective: for example both enter, with in the main the same set of functions, into nominal compounds and, as modifiers, into nominal groups. Lyons' rejection of the identification of adjective and noun (1966 p.226) is valid at one level; but at another level, representable in dependency terms, or in terms of structural functions, the traditional view that the two are sub-classes of the same class embodies important generalizations.

4. I am indebted to Dr. J.E. Buse, of the School of Oriental & African Studies, University of London, for the information (personal communication) that this is in fact the case in Rarotongan (Cook Island Maori).

THE CONTEXT OF LINGUISTICS.

There is a feeling abroad in some quarters that linguists are on the endangered species list. The reasoning seems to be that, when the climate changes, the ones who are most exposed are those who have become so specialized as to live off just one particular kind of tree.

Most subjects have their periods of specialization: moments when the focus is narrowed, the perspective sharpened, and the rest of the world shut out. It is often said that this has to be so, that such specializing is a necessary condition for a great leap forward: and this may well be true, if we are talking about specialization as a posture for research. It is less certain that it need determine the scope of operations of a university department, or of its offerings to its students.

To be highly specialized is in its way a kind of defence, a means of protecting one's identity. We are constantly being reminded of how many others feed on language: philosophers, psychologists, rhetoricians, speech pathologists, communications and media experts, and many more besides. Yet there are significant aspects of language that none of these groups takes account of; so linguists have tended to retreat and to consolidate the terrain that is out of others' reach. How often do we read statements like "Linguists concern themselves only with invariant forms", or "Linguists ignore the cognitive aspects of language", or "Rhetoric is not acknowledged to be a part of linguistics".

It must be said at the outset that there have always been linguists whom this image did not fit. But it is true that during the nineteen sixties the majority, in the United States at least, did adopt a highly specialized work style. Faced with a choice between two ways of being unique, one that of seeing language in the round, from all angles (where disciplines for which language is an instrument, not an object, see only one or two angles), the second that of seeing what lies at the core of language (to which the other disciplines do not penetrate), linguists chose the second, in this way marking out their own area of specialization and using the discipline 'linguistics' rather than the object 'language' to characterize their domain. Linguistics became the study of linguistics rather than the study of language.

Associated with this specialization was a determination that linguistics should be useless, that it was a theory without applications. It was widely held, for example, that linguistics had no application in language teaching. Now it is true that harm has been done in the past by exaggerated claims about what can be achieved through linguistics - so much so that in some areas of the world students expecting to be taught a second language (which they needed) found themselves being taught linguistics instead (which they did not need). But the other extreme view, one denying that linguistics has any relevance in language teaching, is merely a reflection of the way the linguist conceives of his subject; it is not a considered appraisal of the language teaching process. The effect of this attitude has been to discourage linguists from working in applied linguistics, and to make it difficult for those who do to gain support.

Other instances could be cited; in my opinion machine translation is one of them. It is not unusual to be told now that all the funds spent on this were wasted; but I do not think so. Once it was established that machine translation was a problem in linguistics as well as in computer science, significant progress was made, only to be cut short when the community of linguists rejected the kinds of investigation on which it was based as being of no theoretical interest. So the work was abandoned, when it was just beginning to look realistic. Now there are many parts of the world in which people are not being educated in their mother tongue; and one of the reasons for this is the cost of translating textbooks and background materials. Some form of machine translation - and machine translation is not an "all-or-nothing" kind of activity - might eventually have made a critical difference.

In matters such as these, theoretical linguists refused to admit the social accountability of their subject, and withdrew their expertise from activities that could have been beneficial to large numbers of people. I am not saying that all linguists held aloof. Nor am I implying, in an access of linguistic paternalism, that miraculous solutions lay around the corner. A massive accumulation of knowledge and experience was needed, and still is. But to interpret this knowledge and experience requires linguistic theory.

There seems to be a general consensus now that linguistics had tended to become overspecialized and underapplied; the point need not be labored. I would like to suggest a third characteristic, which I think is related to these two, but whose validity is more likely to be challenged. This is the assumption that a human being is bounded by his skin.

J.B. Priestly, the writer and critic, wrote in 1949: "Art to me is not synonymous with introversion. I regard this as the great critical fallacy of our time." (He later developed this theme at length in his account of "the moderns" in *Literature and Western Man.)* Let me adapt this maxim and say: human science is not synonymous with introversion.

I am not referring to the point, repeatedly made, that the technique of introspection into one's own knowledge as a speaker has tended to be overvalued as a source of facts about language. I have in mind a much more general point: that in recent work in linguistics, all the emphasis has been placed on language as stored within the organism, as "what the speake knows". A representative formulation is one from Postal (1968): "It cannot be too strongly emphasized that grammar is a description of part of what people *know*, not of what they *do*". What has happened here is that a real and important distinction, that between the potential and the actual between what people *can* do and what they *do* do - has become conflated with another opposition that is distinct from and independent of it, that between knowledge and interaction - between what goes on "within" the organism and what goes on "between" organisms (or between the organism and its environment). And this second distinction is a rather more problematical one.

It is related to the question that has exercised philosophically minded linguists from Saussure onwards: "where is" language - "in here", or "out there"? Pribram (1971) observes that "Language and culture appear to have unique characteristics which are hard to define as either mental or physical"; and he aptly illustrates this by reference to the legal problem of whether a computer program is subject to patent or to copyright. We can try to resolve

the issue, as Saussure and Chomsky have done, by making the distinction between knowledge and behavior and parcelling out language between the two (and likewise with culture). If we do this, we should recognize that behavior is no more accessible to observation than knowledge is. Behavior is a potential, and what we observe are instances of behavior.

But the distinction between knowledge and behavior is largely transcended in a context such as that of Fribram's "Biologist View". "Consciousness", he says elsewhere (1973), "describes a property by which organisms achieve a special relationship with their environment", and "the basic function of the brain is to generate the codes by which information becomes communicated". Many people now see the "language and culture" complex as an information system. If information is to be located somewhere, no doubt it will have to be at the interface where the organism joins with its environment; but why do we need to localize it by reference to the skin? Meaning inheres in the system: in the information system that constitutes the culture, and in the various semiotic modes (of which language is one) that serve to realize the culture. The system is more general than its representation either as knowledge or as behavior:

	System	Instance
Interaction (behavior)	behavior potential ("can do")	instantial behavior ("does") (= "performance")
Introaction (knowledge)	knowledge potential ("knows, i.e. can bring to consciousness") (="competence")	instantial knowledge ("brings to consciousness")

In recent years theoretical linguistic studies have focussed predominantly on introaction, to the exclusion of the interactive perspective. As a philosophical standpoint, this has a particular consequence for the description of linguistic systems: either the environment is left out of account, or, if it is taken into account, its role is conceived of as static and as passive. It figures as a decorative background to semantic interpretations, but not as a dynamic element in linguistic processes, or in the learning of language by a child. Riegel (1972) remarked that:

> *Both Chomsky and Piaget ... while (their) orientation has set them clearly apart from most American psychologists, ... have failed to assign an appropriate role to the cultural-historical conditions into which an individual is born and within which he grows. ... There is no place in these theories ... for an active role of the environment and for a codetermination of an individual's development by other active organisms.*

The child has been represented as learning language in insulation from his environment, instead of as constructing a social reality through interaction with it.

This situation arises when an equation is set up such that what is inside the skin is identified with the potential, and what is outside the skin is

identified with the actual. "Competence" is defined as knowledge, and interaction is then characterized as "performance" - the concept of a "theory of performance" cannot, in these terms, be other than self-contradictory. Reality then becomes psychological: meaning is located entirel, within the organism, and the social fact is reduced to a mere manifestation. In other words, to idealize is to psychologize.

Here is Lyons' (1968) statement: "... linguistic theory, at the present time at least, is not, and cannot be, concerned with the production and understanding of utterances in their actual situations of use ..., but with the structure of sentences considered in abstraction from the situations in which actual utterances occur". This recalls Chomsky, in 1966: "It is only under exceptional and quite uninteresting circumstances that one can seriously consider how 'situational context' determines what is said, even in probabilistic terms". The impression is given that "situation" and "actual situation" are synonymous, and this being the case the linguist cannot concern himself with interaction and the environment - because interaction is "what a particular speaker does" and the environment is "on a particular occasion". In this way linguistic theory idealizes out the social context, and with it social phenomena of any kind.

To exclude the social context from the study of language is, by implication, to exclude human interaction and the exchange of meanings from the scope of serious enquiry. But there is an alternative, which is to recognize that the "situation" is an idealized construct, as it was interpreted by Firth (1950) and developed by Hymes (1962). In Goffman's (1964) words, "It can be argued that social situations, at least in our society, constitute a reality *sui generis* ..., and therefore need and warrant analysis in their own right, much like that accorded other basic forms of social organization". (I would leave out "at least in our society".) The situation, interpreted as situation type, or "social context", is a representation of the semiotic environment in which interaction takes place. Such concepts - social context, environment, interaction - are of the same theoretical order as "knowledge" and "mind". Interaction explains knowledge no less than being explained by it.

It has been said that an obsession with what goes on inside oneself if characteristic of the modes of thought of the end of an era, when intellectuals, not liking the reality that lies outside, the social upheavals and wholesale resymbelization, find a pleasanter or at least more ambiguous reality within. Behind this somewhat facile observation there lurks perhaps an element of truth - that for the linguist at least the reduction of human behavior to mental operations does avoid the awkward consequence that (to adapt David Hays' formulation) between semantics and reality lies social structure. However that may be, the effect has been to turn attention away from social meaning, and from the social act as a source of explanation.

It is here that speech act theory - the work of Austin, Searle and Grice - has had such significance for linguistics. When the social context has been idealized out of the picture, a theory of speech acts provides a means of putting it back again. It celebrates the linguists' rediscovery that not only do people talk - they talk to each other.

The study of speech acts, which as Searle remarks is important in the philosophy of language, starts from the speaker as an isolate, performing

a set of acts. These include, among others, illocutionary acts - questioning, asserting, predicting, promising and the like; and illocutionary acts can be expressed in rules. In Searle's (1965) words,

> *The hypothesis ... is that the semantics of a language can be regarded as a series of systems of constitutive rules [i.e. rules that constitute (and also regulate) an activity the existence of which is logically dependent on the rules] and that illocutionary acts are performed in accordance with these sets of constitutuve rules.*

The meaning of a linguistic act thus comes within the scope of philosophical enquiry. But a language is not a system of linguistic acts; it is a system of meanings that defines (among other things) the potential for linguistic acts. The choice of a linguistic act - the speaker's adoption, assignment, and acceptance (or rejection) of speech roles - is constrained by the context, and the meaning of the choice is determined by the context. Consider a typical middle class mother and child exchange: *Are you going to put those away when you've finished with them?* - Yes. - *Promise?* - Yes. The second of these yesses is at one level of interpretation a promise, a concept which (in Searle's now classic demonstration) can be explained by reference to conditions of three types: preparatory conditions, the sincerity condition and the essential condition. But its significance as an event depends on the social context: on modes of interaction in the family, socially accepted patterns of parental control, and so forth - and hence on the social system, Malinowski's "context of culture". To describe the potential from which this utterance derives its meaning, we should need to specify such things as (sub-culture) professional middle class, (socializing agency) family, (role relationship) mother - child, (situation type) regulatory, (orientation) object-oriented; and to interpret it as, at one level, a move in a child's strategy for coping with a parent's strategy of control. (How this may be done can be seen from the work of Bernstein and Turner, from one viewpoint, and of Sacks and Schegloff from another.) We shall not want to say that the child's utterance is 'insincere'. But nor shall we want to interpret it as "one speech act conveying another", which introduces an artificial distinction between a speech act and its use, as if to say "As an idealized structure, this is a promise; when it is instantiated, by being located in a social context, it functions as something else".

This is not to be construed as a rejection of speech act theory, which is concerned with the logic of individual classes of acts and not with the ongoing exchange of interpersonal meanings. It does not claim to account for interaction as a dynamic social process. But this does raise an important issue in the study of language as object, when one is trying to understand the nature of the linguistic system. It is one thing to idealize out the social process when one is accounting for the ideational part of semantics, where the relevant 'environment' is a second-order construct of objects and events (Malinowski's "context of reference"). It is quite another thing to do so in accounting for the interpersonal part, since this is, in effect, the semantics of interaction. If speech act theory is taken as a point of departure for describing the interpersonal component of meaning, the social context has to be added in afterwards; and this is somewhat like idealizing the nourishment out of a loaf of bread and then adding vitamins in order to enrich it.

Among the interpersonal meanings expressed in language are the sets of roles that the speaker can select for himself and for the hearer from the social

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relationships that make up the potential inherent in the speech situation. In the most general terms, the options are (i) either giving (offer, or response) or accepting (ii) either information or goods-and-services; derived from these is a rich network of more specific choices. But the meaning of any specific role-relationship that the speaker can assign depends on the social context. The notion of "offering information", for example, means one thing in school and another thing in the family; and something else again in the young children's peer group. It is difficult to account for these patterns - or for how a child comes to learn them - in terms of a semantics in which the speech role has an idealized meaning abstracted from the social situation.

The speech role system is one which has a great deal of 'play', or variation, in it; it is highly sensitive to individual differences, and to differences among social groups, and so plays a significant part in the differentiation of meaning styles. Individuals differ widely in their meaning styles; this is how we recognize people by their meanings. Subcultural meaning styles - what Bernstein calls "sociolinguistic coding orientations" - show the same phenomenon at the subcultural level. Both individuals and social groups vary in the meanings they typically associate with given social contexts; and the selection of roles in the speech situation is a rich source of variation. If any general interpretation is to be given, such variation has to be treated as inherent in the system.

Of course, there will always be idealization; in any systematic account of language, certain phenomena will have to be dismissed as irrelevant. But the nature and extent of this idealization is a function of the purpose in view. In order to achieve a syntax that could be stated by rules, linguistic philosophy first idealized out natural language altogether. Chomsky then showed that natural language could be brought within the scope of rules, given a particular kind and degree of idealization (labelled "competence") which, among other things, excluded all but the ideational component of meaning. If the rules are to be extended to (that part of the syntax which expresses) meanings of an interpersonal kind, it is still necessary to let the indeterminacy in as late as possible, by idealizing out the social context - since it is this that is responsible, so to speak, for the variation within the system. This is not the only possible scheme of priorities; we can conceive of a sociological semantics which excluded all ideational meaning - and which would be equally one-sided. As it is, however, linguistics has been dominated by a perspective which, because of its emphasis on knowledge in contrast to interaction, has favored a semantics without social structure, rather than one that characterizes the meaning potential inherent in the contexts that are defined by the social system.

Progress has then been achieved by further extending the scope of rules. From having been first used in the representation of isolated sentences having neither verbal context nor situational context, their scope has been extended in these two directions: towards text grammars, and towards the structure of interaction.

Text grammars have been described by van Dijk as grammars in which

> *... derivations do not terminate as simple or complex sentences, but as ordered n-tuples of sentences (n > 1), that is as sequences. The intuitive idea, then, is that the text grammar must formulate deriv-*

> *ational constraints such that certain sequences are grammatical and others are not, viz. that the set of well-formed texts of a language is a subset of all possible sequences of sentences" (1972).*

Here there is verbal but no situational context; hence the concept of a text grammar relates primarily to those registers in which the "situation" is contained within the text as a second-order field of discourse, typically various forms of narrative. Any descriptive ideal that proves to be unattainable with a sentence grammar will be doubly unattainable with a text grammar: for this reason text grammars in this sense are likely to remain purely formal exercises.

The structure of verbal interaction has been described by Sacks and Schegloff in the form of rules and sequencing, turn-taking and the like (Schegloff, 1968; Sacks, Schegloff and Jefferson, 1973). Such rules do not specify relations between the social context and the text, but they do take account of features of the non-verbal environment in specifying the sequence of verbal events. The question at this point is how far rules can take us in representing interactive sequences, and how much this in turn tells us about the exchange of meanings as a social process. Mohan (1974) suggests that a more appropriate model for interpreting utterance sequences may be found in social action theory:

> *I shall view certain patterns of dialogue as the result of rational goal-oriented linguistic action by the participants. ... [The] rational order does not determine the specific sequences of utterances, but rather places constraints on the sequencing of utterances.*

In Mohan's view the "means-ends" concept of the purposive, rational actor may be more relevant to human action and interaction than a system of rules.

If utterances are directed by rational action, what is the status of the system that has evolved to produce them? Without going into problems of the nature of functional explanations of human symbolic systems, or their relation to rational action as an explanation of the behavior of the individual, I shall assume that it makes sense to say that language has evolved in conditions which relate it to the creation and maintenance of the social system. Given some form of "means-ends" interpretation of language (cf. Jakobson, 1963), such as enables us to transcend the distinction between the system and its use, what are the "ends" to which the linguistic system provides the "means"? Essentially, language expresses the meanings that inhere in and define the culture - the information that constitutes the social system.

Language shares this function with other social semiotic systems: various forms of art, ritual, decor and dress, and the like. Cultural meanings are realized through a great variety of symbolic modes, of which semantics is one; the semantic system is the linguistic mode of meaning. There is no need to insist that it is the "primary" one; I do not know what would be regarded as verifying such an assertion. But in important respects language is unique; particularly in its organization as a three-level coding system, with a lexicogrammar interposed between meaning and expression. It is this more than anything which enables language to serve both as a vehicle and as a metaphor, both maintaining and symbolizing the social system.

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I do not mean by this that language provides a formal model for the representation of culture. As John Lyons pointed out in the context of a recent conference on communication studies (1973),

> *... the structuralist approach to non-linguistic material in terms of lower-level linguistic concepts would tend to support the view that there is a fundamental difference between linguistic and non-linguistic modes of communication. ... We cannot expect to be able to apply very much of the framework of concepts and categories established by linguists to non-linguistic material.*

If we do find partial similarities between language and other symbolic systems having semiotic value in the culture, this may suggest that common functions determine common forms, but its significance lies in explaining how one symbolic system can serve as metaphor for another and is interpreted as such. For example, language has certain properties in common with games: it has tactic systems, or sets of rules; it requires the adoption and assignment of roles, based on turn-taking, and so on. Not surprisingly, the two can serve a similar social function; so we find verbal contexts alternating with contexts in other spheres. Compare also Mead's view of language and games as the two "social conditions under which the self arises as an object" (1934). But we are not projecting the form of language on to other semiotic systems; the link between them depends not on a common mathematics but on a common social function and social value.

In using language, we are both observing the environment and intruding on it. Nearly every utterance has both an ideational meaning, relating to the processes and things of the real world, and an interpersonal meaning, relating to the roles and attitudes adopted and assigned by the speaker. The semantic system is organized around this dual focus, of reflection and of action; and because it is so organized, it also stands as a metaphor for the culture, since culture is a construct of two environments, the natural and the social. Lévi-Strauss has stressed how the two are interlocked: the natural environment is a focus both of action and of reflection, and the social system is encoded in natural as well as in behavioral symbols. This interdependence is also both expressed and symbolized in language: to speak is to be both thinker and actor at the same time, and the two together define the act of meaning - which in turn has shaped the inner structure of the semantic system. Yet by the same token the act of meaning transcends this duality of thought and action. Let me quote here a passage from an article by Tambiah (1969), which makes the same point in quite another context, that of the study of animal classification systems. Discussing the problem whether rules tend to accrue to animal species for symbolic or for pragmatic reasons - because they are "thinkables" or because they are "eatables", in Lévi-Strauss' mode of discourse - Tambiah concludes:

> *Between Lévi-Strauss' sign-oriented intellectualism ... and Fortes' actor-oriented moralism ... lies scope for an imaginative reconstitution and reconciliation of the structural properties of symbolic systems qua systems, and the effectiveness of symbols to bind individuals and groups to moral rules of conduct. Cultures and social systems are, after all, not only thought but also lived.*

This I think provides a perspective for a humanistic interpretation of language.

This is a very abstract conception; but it has practical consequences in explaining how language comes to symbolize the social structure, and thus social values come to be attached to linguistic forms. Let me cite a rather extreme example, that of Podgórecki's interpretation of the "second life" - the subculture, or anti-culture, of corrective and penal institutions which he has studied in Poland and in America. This "second life" takes the form of a hierarchy which represents in symbolic form the social order of the world "outside"; it is ritualized through a "language" which appears to have as its primary function the maintenance of the social order of the second life, symbolically and through the regulation of behavior. In Podgórecki's words (1973),

> *The essence of the second life consists in a secular stratification which can be reduced to the division of the inmates into 'people' and 'suckers'. The 'people' are equal; they differ [only] in the degree of acceptance of the patterns of behavior which are the second life rituals. ... The body of those rituals are called 'grupserka' (from 'grupa' - a slang word designating a letter smuggled secretly to or from a prison); Malkowski defined it as 'the inmates' language and its grammar'. In this language, certain ... words are insulting and noxious either to the speaker or to one to whom they are addressed.*

It may be said that these are pathological phenomena, of no general interest. But only the most determined idealist would claim to distinguish clearly between the pathological and the normal; it is pointless to ignore the pathological aspects of the social system. The second life comes into existence in response to conditions created by the system; it also stands as a metaphor for the system, representing it as though projected into a closed shell. The anti-society is the society as it becomes when cut off from nature and openendedness and forced to close in on itself. A linguistic study of phenomena of this kind may shed new light on more familiar patterns of interaction and their relation to social structure.

In our concern with the rules of forms and the forms of rules, the social structure tends to be forgotten, and language is set apart from the linguistic community. But the linguistic community is an important component of a linguist's reality. In its traditional sense, as a linguistically homogeneous population linked together in a network of communication, it is an idealized construct to which probably no human group ever fully corresponds, and from which our modern urban social structure is very far removed. But whether we think in terms of the United States, or New York City, or the Lower East Side, we are still referring to what are in a real sense semiotic domains, entities throughout which meanings are exchanged in regular, socially defined contexts. A modern city is an elaborate cosmos of symbolic interaction in which language functions as a powerful and yet sensitive instrument for the fashioning of social life. The patterns of interaction recall in many ways the dialectic of society and anti-society, though without the sharp boundary which separates the two; between language and anti-language there is, rather, an uneasy continuum, in which the street gangs and criminal subcultures define one pole (Halliday, 1976). In this sort ofenvironment, the language of a social group that is under pressure, for example what Labov (1972) calls "BEV" (Black English Vernacular), becomes a major factor in the definition and defence of that group's identity.

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The linguistic "order" (to borrow the sense of "social order") in a complex society is closely bound up with variability in the linguistic system, our understanding of which is due first and foremost to the pioneering work of Labov. Wherever human behavior is perceived as variable, social value tends to attach to the variants; and language is no exception. In many instances, the value assigned to a variant is simply the value assigned to the social group with which it is thought to be identified; this is the source of the "prestige form". From the point of view of language as system, the assignment is arbitrary: there is no intrinsic reason why +/r/ should be favored over -/r/, or the other way round as the case may be. At other times, the value attaches to meanings, and here the effect is non-arbitrary. Semantic options, especially perhaps (though not only) those of an interpersonal kind, forms of address, politenesses and insults, modalities, and the like, mark not only individuals but also social groups: these too have their "meaning styles", as I expressed it earlier. Elements at other levels, syntactic, lexical, morphological and phonological, may become "foregrounded" through association with these semantic features, giving a sense of mutual reinforcement - what in the context of a literary work is called its "artistic unity", where in layman's terms "the style (or the sound) suits the meaning". An example is the social status of vocabulary derived from different sources: in English, Graeco-Romance words are associated with learning, and hence by a natural extension with pomposity and pretence (a "latinate" style). Either way, value-charged elements become available as coinage in verbal exchanges of all kinds; the speaker may "follow the rules", or he may play with them, bend them, and break them, as Sherzer has described. Gumperz' work brings this out strikingly in a number of different contexts (1971). Variation in language is a rich source of symbolism for the elaboration of the social structure.

Since in the main stream of linguistics language had been isolated from its social environment, work in this area came to be known by the somewhat self-conscious label of "sociolinguistics", the prefix suggesting that here, by contrast, language is studied in its natural environment. "Sociolinguistics" thus corresponds to what at other times and places has been called simply linguistics. It has led to some striking new linguistic insights, particularly in the interrelation of descriptive and historical theory. On the other hand, it has had little to say about society: "no.", as Bickerton (1972) remarked, "has there been any stampede of sociologists into the linguistic corral, looking to see what there is for them there, as there has of educationists or philosophers".

It will not do, in the present context at any rate, to read too much into the "socio-". Most sociolinguistic studies still accept as given the linguist's own rather simple model of the social structure. They still concentrate on phonological and morphological indices; and they still assume a situational determinism based on a concept of styles as something somehow separate from meaning. The next step is to see where language might suggest some new interpretations of the social structure, to work towards a social semantics which could explain patterns of social value in terms of more than the "prestige" of arbitrarily selected formal features; and to investigate the question of how the social system, as a whole, works through the linguistic system as a whole - which Hymes has referred to as the central problem for sociolinguistics in the immediate future.

Until this step is taken, the frame of reference for the discourse will continue to be the traditional subject-matter of linguistics. This is the basis of the definition of sociolinguistics as "the study of language in a social context", as distinct from "the study of language-and-society", perhaps again reflecting the prevailing "intra-organism" mode of thought in its reluctance to postulate a deeper social reality. Contrast in this respect the different and largely complementary conception of sociolinguistics to be found in the work of Bernstein (1971, 1973), directed towards a theory of society, but one in which language has a critical function as the effective channel of transmission of the social structure.

Bernstein's studies of socialization suggest how the semiotic patterns of culture and subculture perpetuate themselves in language, and how a child is drawn into the systems of social values in the course of, and as a concomitant of, learning his mother tongue. Among these value systems are those relating to language itself, and these carry with them a whole baggage of largely negative attitudes to which the child is exposed - it is oversimple to suggest that a child has no conception of linguistic inferiority other than that which he learns through school. These attitudes are prevalent in family and peer group. But they are sanctioned from beyond; and the authority that comes from the adult world is felt most strongly in the context of the third of the primary socializing agencies, the school.

Through the accumulation of debate and experiment in the education of non-standard speakers, it seems to emerge that it is no great burden on a child, or even an adult, to live with two (or more) dialects provided the conditions are not unfavorable. This is not surprising once one accepts that, in language, variation is the norm. Unfortunately, however, an environment of linguistic prejudice constitutes a very unfavorable condition; as Riegel expresses it (1973),

> *Children raised under poor economic conditions ... are commonly also raised under the least favorable linguistic contingencies, those leading to confounded bilingualism. They are prevented from transferring knowledge in one language to the other because the two languages are not sufficiently separated. ... The first step to aid them has to consist in accepting the two languages, e.g. standard and non-standard English, as separate and equal.*

Riegel's concept of separateness raises interesting questions of a different kind, that we cannot go into here; but on the equality issue there can be no hedging.

I think it is fair to claim as a positive achievement for linguistics its part in modifying the prevailing social attitudes to dialectal varieties. This is not to claim that the battle has been won. But those who have worked in an educational context over a period of time can testify to the increasing objectivity towards, and tolerance for, non-standard forms of speech; it seems to go hand in hand with a greater interest in and concern for the spoken language. There has been opposition, of course, both from within and from outside the academic community; there are those for whom the recognition of social value in non-standard speech is nothing but sentimental egalitarianism, as well as others who have seized on the idealizations of formal linguistics as a justification for worn-out prescriptivism - a move made easier

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for them by the prevailing but quite erroneous notion that casual speech is fragmentary and formless. It is fairly generally known, by now, that linguists have always insisted that the standard/non-standard distinction has to do not with language as a system but with language as an institution - it is a function solely of the relation between a language and its speakers - and that all forms of language are equally deserving of respect and attention. No other group than the linguists has consistently espoused and explained this position.

No-one would wish to imply, therefore, that linguists everywhere have contracted out of the social system. But the participation of a group is not measured by the number of individuals in it who get their feet wet. We cannot divorce the social context of linguistics from its intellectual context; and it cannot be disputed that the profession as a whole has tended to dissociate itself from many questions of language that are of serious and understandable concern to laymen. We have disclaimed interest in questions of rhetoric; in socially weighted languages, such as those of politics and the law; in writing, journalism and the media; in technical languages and technical terminology; in translation and interpreting; and in the whole problem of evaluating and monitoring human communication. An example of what linguists are doing in these areas can be found in Ferguson's (1973) studies in the language of religion; but such studies are still rare. It is as if, far from struggling for social recognition, we have struggled to reject the recognition that society wants to thrust on to us, and the responsibility that goes with it. At an academic level we have wooed those disciplines which allowed us to maintain our own purity of thought; while the intellectual exchanges with other neighboring disciplines, such as English, education, and rhetoric, have been minimal.

In short: linguistics has not yet faced up to the question of its social accountability. Social accountability is a complex notion which cannot be taken in from one angle alone. It is not defined as satisfying some abstract or symbolic entity such as a board of trustees, the business community or the taxpayer. Nor is it the same thing as satisfying our own individual consciences, which is a purely private luxury. There is an ideological component to it, which consists at least in part in eliminating some of the artificial disciplinary boundaries that we have inherited and continued to strengthen. At this level, many of the arguments lead back to this same point: that there are strong boundaries between academic disciplines, which hamper intellectual development, and induce both overspecialization and underapplication. Perhaps we need some "semi-revolutions" of the sort envisaged by Bennison Gray (1974), with his plea for unifying linguistics and rhetoric in a "semantic grammar". At any rate, in the human sciences, private conversations within one discipline seem to have outlived their usefulness; as Mary Douglas has said (1973),

> *The specialists have had half a century to confer with their inner circle of initiates and to evolve rules of discourse appropriate to the fields they have hedged off. The time has come for a renewal of the original community and of the free-ranging conversation about the social basis of knowledge that it once enjoyed.*

Nothing represents the unity and the social basis of knowledge better than language. Here "represents" is being used in both its senses: as I have

tried to suggest all along, the linguistic system both realizes and symbolizes the social semiotic, of which academic knowledge is one part - to quote Mary Douglas again, "The time has come to treat everyday knowledge and scientific knowledge as a single field". The "truly comprehensive semiotic", which as envisaged by Maclean (1972) 'must find its point of departure in a humanistic perspective upon social life", will have linguistics - or, at least, the study of language - as a vital component. In more concrete terms, if we are prepared to think of meaning as energy, and the exchange of meanings as the social creation of energy, linguistics can help to ensure that this energy is effectively released and that people come to achieve, much more than they are doing at present, their full potential as meaners.

But this role can be filled only by a linguistics "in the round", as I expressed it earlier, and unhampered by disputes over territoriality. Linguists cannot afford to absent themselves from the dialogue of disciplines; if they do, the study of language will simply go on without them. The public image of linguistics - one that unfortunately reflects the reality of some linguistics departments - is that it continues to be defined by a single interest and a single intellectual mould. Both the image and the reality are changing, especially as linguists reopen their contacts with teachers and educators. But there are many other avenues of public activity that have hardly begun to be explored.

This is partly, no doubt, because of our ignorance. How much do we yet know, for example, about linguistic interaction in the young children's peer group, and the part it plays in their construction of reality? Or about how a doctor or a politician or a poet makes language work for him? Or about why one example of speech or writing is judged more effective than another? But it is partly because we have not yet given up our right to put our chosen object, language, in its glass case and scrutinize it from just our own favorite angle. It has to be everyone else's idea of language that we look at, not just language as we choose to define it.

In this sense, the context for linguistics in the future is likely to be one in which linguistics in its present form as a social phenomenon ceases to exist. Society, language and mind are indissoluble: society creates mind, mind creates society, and language stands as mediator and metaphor for both these processes. That is the slogan. In terms of practicalities, provided there are still universities ten years from now, I am confident that there will still be students of language. I imagine they will have little patience with an academic distinction between language structure and language use; but they may be very much concerned with the concept of language and the social system - with the language of politics, education, religion, ideology; with language and poetry, cinema, theatre, music, dance; with the language of mathematics and science, and with how it differs from the language of literature or of everyday conversation. Also, I think, with the whole question of how people use language to learn, and to construct the various levels of reality by reference to which we define ourselves. These concerns, in turn, should enable theoretical linguists to see more deeply into the semantics of language, the systems of meaning with which we actually operate as a symbolic potential. In my opinion, this is an area which we have hardly yet begun to understand.

IDEAS ABOUT LANGUAGE.

Linguistics may still be a fairly new name; but it is by no means a new phenomenon. The objective and systematic study of language (if we call this 'scientific' linguistics, it will serve to distinguish it from the 'folk' variety) was already under weigh in classical times - in Europe, in China, and above all in ancient India. One of the greatest of all our predecessors is the Indian scholar Pāṇini, who lived, probably, in the fifth century B.C. Of Pāṇini's Sanskrit grammar, Robins remarked that it 'manifestly came at the end and as the culmination of a long line of previous work ofwhich we have no direct knowledge'. And while the linguistic insights of ancient Greece do not perhaps attain the same high level of sophistication as those of India, there too there must lie behind them a long period of speculation about the nature and evolution of language.

In this perspective, of more than 2,000 years of linguistic enquiry (and there have been remarkably few gaps in the tradition), it is hardly surprising that all of us have rather explicit ideas about language. The folk linguistics of western man now contains various technical terms such as noun and verb; and even elaborated concepts like participle and preposition, active and passive, imperative and subjunctive find their way into everyday conversation. It must be admitted that they are not always elegantly used. A friend of mine in the public service once drafted a letter for his head of department to sign, only to have it returned for correction. In it, he had written, 'As soon as the contract is ready we will send you a copy of it'; this had been amended to, 'we will send you a copy of same'. Incensed by this barbarism, my friend complained; to which the senior official replied, in tones of shocked reproof, "But you can't end a sentence with a preposition!'

Much of our adult folk linguistics is no more than misremembered classroom grammar (or was, in the days when there still was classroom grammar); it may be wrong, but it is anything but naïve. If therefore we want to find out what it is that people know about language simply by virtue of the fact that they speak, we have to go back a little farther; and since we cannot go back in the history of the culture, at least not back to ultimate beginnings, we will go back for a brief excursion in the history of the individual. What does a child know about language before his insights are contaminated by theories of the parts of speech?

The earliest linguistic terms an English-speaking child learns to use are not terms like *noun* and *verb*, or even *word* and *sentence*; in fact they are not nouns at all - they are verbs, typically *say* and *mean*, and shortly afterwards *tell*. So for example Nigel, at 1 year 8 months, told the story of what happened on a visit to the children's zoo. He had been stroking a goat, while in his other hand clutching a plastic lid he had picked up somewhere; the goat worked its way round so that it could nibble at the lid, but the keeper took it away. Here is Nigel's account:

goat try eat lìd ... man said nò ... goat

shòuldn't eat lid ... (shaking head) gòodfor it.

'The goat tried to eat the lid. The man said "No. The goat shouldn't eat the lid - not good for it".' A child must understand a great deal about the nature of language to be able to report speech in this way. He must have internalised the concept of an act of meaning - of speech as symbolic action, distinct from but interdependent with acts of a non-symbolic kind. And when we look more closely, we find that he can already report acts of meaning before he has an explicit verb *say* with which to do so. Here is Nigel at 1 year 7 months. A kite had fallen and its string lay stretched along the ground; his father had warned him not to trip over it. Nigel recalled the incident later, saying

·ɑ àɪ... "ɑ̀ɪ... mãiŋ⁶ tɪŋ"

Translated into adult, Nigel's sentence 'meant', '(there was a) kite, (and Daddy said "there's a) kite, mind (the) string".' Already for Nigel at a year and a half, saying is a part of experience; like other actions and events, it can be observed, recalled and narrated.

> By 1;9 Nigel has distinguished 'saying' from 'meaning'. He is told to keep away from a friendly dog, and reports:
>
> lady said "don't touch fènny; not feeling wèl"
>
> This contrasts with:
>
> "lailai ... lailai" ... I don' know lailai mean
> "tryget èvl"... what that mean?

He also has a clear concept of 'naming', which is the converse of meaning. Once again, the *concept* is developed long before it gets a name, and Nigel progresses towards it through various stages: at 10 months, bə̀ 'let's look at this together' (togetherness through shared experience); at 13 months ɑ̀ː::ɑ̀ɪ̀ 'let's look at this - you say its name!'; at 16 months ɑ̀ɪ'ɑ̀ɪ̀ 'tell me its name!'; at 20 months, *what that*, and at 24 months, *what's that called?*

By the time he is two years old, a child has a considerable awareness of the nature and functions of language. When he starts to talk, he is not only using language; he is also beginning to talk *about* it. He is constructing a folk linguistics, in which (i) saying, and (ii) naming-meaning, denote different aspects of the same symbolic act. And language functions for him both in reflection and in action: as a way of thinking about the world (including about himself), structuring his experience and expressing his own personality, and as a way of acting on the world, organising the behaviour of others and getting them to provide the goods-and-services he wants. The one thing he does not do with language at this stage is to impart information. In fact - and despite the predominance of this motif in adult *thinking about* language - the imparting of information never does become the unique primary *function* of language even among adults (except perhaps those who do it for a living).

Soon, however, the child will go to school; and once he is there, his ideas about language will be superseded by the folk linguistics of the classroom, with its categories and classes, its rules and regulations, its do's and, above all, its don'ts. Here a fundamental ideological change takes place

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in the child's image of language - and, through this, in his image of reality. Up till now, language has been seen as a resource, a potential for thinking and doing; he has talked about it in verbs, verbs like *call* and *mean*, *say* and *tell*, and *rhyme*. From now on, language will be, not a set of resources but a set of rules. And the rules are categorical - they operate on things; so he must talk about language in nouns, like *word* and *sentence*, and *noun* and *verb*, and *letter*.

It would be wrong to suggest, however, that the image of language as resource is totally submerged and lost. Unlike the linguistics of the classroom, which is codified (organised as a cultural institution), and so conscious and explicit, the linguistics of the family and neighbourhood, though it is *coded* (organised semantically), is not codified; it is partly implicit ('covert', in Whorf's terminology), and so below the level of conscious awareness. For this reason it has considerable staying power; and the adult, however much he may traffic in categories and rules, and sentences ending in propositions, and all the niceties of verbal etiquette which show how well he was brought up, retains some insights of the earlier kind, and even adds to them in the course of his everyday informal discourse, a great deal of which is talk about talk. So when we say "I know what he means. But he could have worded it differently." we are showing an awareness of language as a multiple coding system, in which meanings are coded or expressed in wordings; we also know that the wordings are in turn expressed, or recoded, in speech (and, in some languages, in writing); and this is exactly what the linguist means when he says in more ponderous terms that language is a tristratal system consisting of a semantics, a lexicogrammar, and a phonology. The committee man who says about some resolution that we should "keep the meaning, but change the wording" is expressing the folk linguistic insight that the coding is not one-to-one; it is always possible to change how you say what you mean - though, in fact, as he would probably admit, the meaning that results is never *exactly* the same as it was before.

So we have enshrined in our folk linguistics, these two views, one of language as resource, the other of language as rule. The two co-exist; but since one is a product of our primary socialisation, and belongs to the reality that is learnt at our mother's knee, while the other is part of a secondary reality and belongs to the realm of organised knowledge, they impinge on each other scarcely at all. But in our prevailing ideology, the dominant model is that of language as rule (our schools teach the formal grammar of logic, not the functional grammar of rhetoric); and it is only when we come across the writings of those with a different vision of language, like Malinowski, Hjelmslev and Whorf, or alternatively when we make a deliberate effort to change the prevailing image, as some teachers and educators are trying to do, that the notion of language as resource surfaces from our unconscious and we begin to build on the insights that we possess by virtue of this simple fact, observed from the moment of birth (if not already before), but so easily forgotten by the philosophers of language, that people talk to each other.

It is in this light that we should look for a moment at the earliest traditions of linguistics in the West. We do not know, of course, what went on before the development of writing; many non-literate cultures have extensive folk taxonomies for different types of speech event and the social values which accrue to them [see Bauman & Sherzer (eds.), *Explorations in the Ethnography of Speaking*, for descriptions of Tzeltal, Mayan, Maori, Iroquois, etc.], and it is not unlikely that language was a topic of systematic explorations in early pre-classical times, with what Peter Minkus calls

'campfire grammars' as a forum of linguistic ideas. The amount of attention given to language by Plato (Plato often uses language as a source of his analogies; there are also systematic observations on it in the *Sophist* and elsewhere, and the *Cratylus* is wholly devoted to language - it is an elaborate etymological fantasy, which Socrates is made to offer with some embarrassment) suggests that a great deal of intellectual discussion of language went on in fifth century Athens. We can only guess what forms it took. Far too little is known of the work of Protagoras and the sophists, and what is known comes largely from their detractors; but from these slender indications, it seems likely that it is they who were the originators of systematic linguistics in the West. According to Diogenes Laertius, Protagoras identified the basic speech functions of statement, question, command and wish; these were what formed the basis for the first steps in grammatical analysis.

The sophists were concerned with rhetoric; with the nature of argumentation, and hence with the structure of discourse. We know that they were familiar with elementary grammatical categories like number and gender. We do not know how far they took the analysis of sentence structure. But it seems likely that the insight recorded by Plato in the *Sophist*, that a piece of discourse consists of two parts, ὄνομα and ῥῆμα, was their achievement. This was an analysis of a unit of discourse considered as something that is *arguable*, something that can be maintained, denied, disputed, contradicted, doubted and urged. It was *not* an analysis in terms of logical structure, and it said nothing whatever about truth value. What then would be the meaning of ὄνομα and ῥῆμα in such a context? Here is how Plato introduces these terms, in the *Sophist*. Stranger: "There are two modes of the expression of existing things in sound ... That which is an expression for actions we call ῥῆμα . The vocal sign for those who do the things, is the ὄνομα. And later: "If we combine ῥήματα with ὀνόματα , we are not only naming; we are doing something (οὐκ ὀνομάζει μόνον, ἀλλά τι περαίνει)". And finally "Discourse (λόγος) must be about something; it cannot be not about anything (λόγον ἀναγκαῖον .. τινός εἶναι λόγον, μηδέ τινος ἀδύνατον)" - otherwise it is not discourse (οὐκ ἔστι λόγος). The Stranger gives an example: "I will say a piece of discourse to you, in which a thing and an action are confined, by means of ὄνομα and ῥῆμα ; you tell me who the discourse is about ... *Theaetatus is sitting* ... Who does this discourse speak of?" And Theaetatus answers, "Of me. It is about me."

There are three distinct and important steps here. First, there is the identification of two grammatical classes based on meaning, on semantic function: verb, expressing (an) action, and noun, expressing (the) actor; the two combine to make up a piece of discourse. Here verb and noun are the names of *classes* (categories), but they are defined by their *functions*, functions in transitivity - in the linguistic representation of actions and events; and, naturally, the verb is identified first, the noun being then derived from it. Secondly, discourse must be *about* something; so the noun also functions as 'what the discourse is about'. Plato does not label this function; Jowett translates using the term 'subject', but it is not subject in the later Aristotelian sense, from which we get subject-predicate analysis; it is rather what in modern linguistics is called 'theme'. A discourse must have a theme. Thirdly, once we form discourse, by combining words into structures, we are not just naming; we are accomplishing (ἀλλά τι περαίνει). Discourse is a mode of doing; whoever says something, does something.

It is this last point in particular which makes it probable that the theory derives from the sophists. The immediate context is, of course, a refutation of sophist theory, especially sophistical relativism; the Stranger goes on to relate discourse to the question of truth. But the view of language is a rhetorical one. A sentence has a theme; this is what makes it arguable - gives it the potential for being stated, refuted, queried and so on. And stating, refuting, querying - all these are forms of action. The Platonic model of language, in this respect, seems to have remained very close to sophist thought.

The next steps we know of were taken by Aristotle, and with Aristotle the picture of language undergoes a drastic change. Aristotle was above all a logician. In the controversy about the arbitrariness of language - whether the relation of language to the real world of experience was natural or conventional - where Protagoras had emphasised language as natural symbol and Plato (in the mouth of Socrates) had allowed for both possibilities, Aristotle opted explicitly for the conventionalist viewpoint. Names arise solely by 'contract' or convention: Τὸ δὲ κατὰ συνθήκην, ὅτι φύσει τῶν ὀνομάτων οὐδέν ἐστιν, ἀλλ'ὅταν γενῆται σύμβολον [*On Interpretation* II, 16a.27]; nothing is by its nature a name. Out of the earlier notion of λόγος as connected speech or discourse has evolved the concept of 'sentence', which likewise has meaning by convention: ἔστι δὲ λόγος ἅπας μὲν σημαντικός, οὐχ ὡς ὄργανον δέ, ἀλλ'ὡς προείρηται, κατὰ συνθήκην [*ibid.*IV, 17a.1]. The sentence is made up of parts - the expression μέρος λόγου, 'parts or components of the sentence' (the term which was later mistranslated into English via Latin, as *parts of speech*) although it is not I think found as a technical term in Aristotle, derives from his terminology: each of these parts has meaning by itself, but only when the parts are combined do they form a judgment such that one can say whether it is true or false. It is the sentence as bearer of truth value - the proposition - with which Aristotle is primarily concerned. Other types of sentence, such as prayers, he admits to be meaningful: but he considers that, since they lack truth value, they belong to the province of rhetoric or poetics [*ibid.*IV, 17a.5].

So ὄνομα and ῥῆμα become the components of a proposition: and the proposition is then redefined in terms of subject and predicate, as the functions in a premiss. But subject and predicate are *logical* concepts: they have to be clearly distinguished from the *linguistic* elements which enter into these logical relations. As a consequence, the linguistic elements come to be reinterpreted purely as classes - as lists of linguistic items (τὰ λεγόμενα). In other words, since linguistic *functions* are being treated as logical, the analysis of language (itself (i.e. grammar) becomes purely *formal*, something to be stated in terms of classes not of functions. Hence the Aristotelian image of language is that it is a set of constituent structure rules. In the *Poetics* Aristotle enumerates the units of discourse, including letters (the ultimate constituents - in fact sound units, as in the English sense of *letter* in Cle-ls), syllables, conjunctions, articles, nouns, verbs, affixes and sentences; and he defines these units in terms of rules for their combination [*Poetics* 1456^b - 1458^a].

This is a long way from the sophists' ideas about language, and even from Plato's. The sophists saw language as a resource; as a mode of action and a means of putting things across to others. They were concerned with meaning. But not with truth value; if language had any relation to truth this lay in its ability to demonstrate that truth was relative to the believer,

and that there was another side to whatever question was at issue. Aristotle saw language as a set of rules; as a mode of judgment and a means of affirming and denying, without reference to other people. He was concerned with truth value, and hence subordinated language to the structure of logic.

So in the earliest flourish of western linguistics we can trace the source of our original metaphor. In the way a child growing up in our culture develops his ideas about language, in the folk linguistics of home and school, we can recognise these two distinct cognitive styles. The child's shift of perspective, from an unconscious awareness of language as doings, as a way of achieving by acting on others, to a conscious scrutiny of language as norms, or rulings, has its counterpart in the shift of perspective from language as rhetoric to language as logic in the ideology of the ancient Greece.

The changed conception of grammatical structure, from a configuration of functions defined *within* language to a bracketing of constituents representing functions defined *outside* language (in logic), symbolises the beginnings of a split between ethnographic and philosophical linguistics which has persisted to the present day.

We can follow these two strands throughout the subsequent history of ideas about language in the west. The one stems from Aristotle: it is 'analogist' in character, based on the concept of language as rule, and it embeds the study of language in philosophy and logic. The other has, for us today, less clearly defined origins, but it can probably be traced to Protagoras and the sophists, via Plato: it is 'anomalist' in character, and has a marked element of Stoic thought in it. It is not philosophical (the Stoics were the earliest scholars explicitly to separate linguistics from philosophy, and grammar from logic) but rather descriptive or, to use another term, ethnographic; and the organising concept is not that of *rule* but of *resource*.

Let me try to summarise these two traditions, as they have persisted through the ages. In doing so, I shall inevitably be grossly oversimplifying; in particular I would disclaim any suggestion that every school, every scholar and every work must belong squarely to one tradition or the other. Most of them combine ideas, in various measure, from both. But this may perhaps give some impression of a pattern that is to be found recurring throughout the history of ideas about language in western thought.

We can identify, broadly, two images of language: a philosophical-logical view, and a descriptive-ethnographic view. In the former, linguistics is part of philosophy, and grammar is part of logic; in the latter, linguistics is part of anthropology, and grammar is part of culture. The former stresses analogy; is prescriptive, or normative, in orientation; and concerned with meaning in relation to truth. The latter stresses anomaly; is descriptive in orientation; and concerned with meaning in relation to rhetorical function. The former sees language as thought, the latter sees language as action. The former represents language as rules; it stresses the formal analysis of sentences, and uses for purposes of idealization (for deciding what falls within or outside its scope) the criterion of grammaticality (what is, or is not, according to the rule). The latter represents language as choices, or as a resource; it stresses the semantic interpretation of discourse, and uses for idealization purposes the criterion of acceptability or usage (what occurs or could be envisaged to occur).

The degree and kind of idealization involved is a key point of difference between the two perspectives. In philosophical linguistics the level is set very high: language has to be reduced as nearly as possible to an artificial logical language - hence the improbable examples used by philosophical grammarians, such as the famous *Socrates albus currit bene* 'white Socrates runs well' of medieval modistic grammar. Ethnographic linguistics, by contrast, keeps as close as possible to real language, spoken or written; when the linguist has to construct examples, he takes care to make them convincing.

It does not seem very difficult to discern that the two views are in no way contradictory. Yet they are often made to appear so. Throughout the history of western linguistics they have drifted now closer, now further apart; the last two decades has seen a very sharp polarization between them, but now the gap is closing once again. For most of the time the dominant strand has been the philosophical one. It appears in medieval linguistics in the theories of the Modistae, who laid the foundations of formal syntax; in their successors the French 'rationalist' school of Port-Royal, with its Aristotelian conception of scientific knowledge; and in the Chomskyan structuralist-transformationalist theory of today. Philosophers of language tend to have a very explicit view of the nature of a theory, and of what constitute valid modes of reasoning; they tend to dismiss the ethnographers as non-theoretical, because their theories are not of the right kind. Chomsky's dismissal of Hockett for being right for the wrong reason is strikingly reminiscent of Aristotle's dismissal of the sophists for knowing things in an 'accidental' way. Both formulations mean simply that the two ideologies differ as regards what they consider to be an explanation.

Ideologically, philosophical linguists tend to be absolutists, while ethnographic linguists tend to be relativists. The relativists of the ancient world were of course the sophists, who held that truth was relative to the time, the place and the individual subject; but this was a general philosophical outlook. Relativism as a specifically *linguistic* viewpoint appears only in the modern post-Renaissance period, when linguists first began to describe more than one language. Describing different languages is a relatively recent preoccupation; and with it the difference of ideology appears in a new guise, as an issue between language universals and language variables. When languages come to be seriously compared with one another, the question arises: are all languages alike, or are they different?

Presumably everyone agrees that there are certain respects in which all languages are alike. All languages consist of meanings, wordings and soundings; they all have names for things; they all have melody, rhythm and syllabic articulation. Equally, everyone agrees that there are certain respects in which languages differ: not only do they obviously have different names for things, they also construct these names differently, have different kinds of melody and rhythm, and different ways of wording and of sounding. The issue is, simply, which is to be the more emphasised, the uniformity or the variety. This is really the old 'analogy-anomaly' controversy metaphorized into a modern form; but it is a critical issue. Philosophers of language stress the universals; they make all languages look alike. Ethnographers stress the variables; they make all languages look different. When new languages came to be described by European linguists, from the early seventeenth century onwards, first the modern European languages and then languages from further afield, both these two opposing tendencies became apparent. Either every language is treated as a version of Latin, or each language is described in its own terms.

The consequences of this are still with us today. Transformational linguistics made extreme claims about universals. Since these claims were couched in terms of a formal theory, they could not be empirically invalidated: if, for example, it is claimed that in all languages the subject precedes the predicate (the prior assumption being of course that all languages have subject and predicate), then if a language turns up in which the subject follows the predicate all one need do is to set up an abstract representation in which the subject precedes the predicate and derive the other one from it. This is a harmless enough exercise. What is not harmless, however, is the nature of the chosen universals. The features to which this universal status is assigned are largely features of English, which has replaced Latin as the huntingfield of philosophical linguists; or at best features of what Whorf called 'Standard Average European'. They are not any longer the crude and easily penetrated absurdities of a century ago, when the pluperfect subjunctive was likely to be foisted on to a language such as Indonesian or Chinese; they are much more subtly disguised - but they are European all the same. Modern philosophical linguistics is distressingly ethnocentric. It presents all languages as peculiar versions of English. In this situation it is not enough for the ethnographers simply to go on with their own work, of describing each language in its own terms. This cuts no ice at all. What they need to do perhaps is to turn the tables - to describe English in terms of categories derived from other languages, to interpret it as a peculiar version of Chinese, or Hopi, or Pitjantjatjara. With an effort of this kind universal linguistics might come to be freed from ethnocentricity and begin to make a serious contribution to the understanding of human cultures.

It is not easy to penetrate under the skin of another language, especially one from a culture that is very remote from one's own. On the surface, of course, there should be no problem, since whatever meanings are expressed in the other language can also be expressed in one's own, allowing for the invention of new names where necessary. But what matters most in a language is not what *can* be expressed but what *is*; and even more, what is *coded* - what meanings are systematized, and how these meanings are organised in their contrasts and combinations. Structural descriptions of sentences do no more than scratch the surface of language, and even here the very strength of the philosophers' insights into logical structures has distracted attention from the real nature of structural relations in language.

Our linguistics today is still very close to a folk science. We have progressed very little, in these two-and-a-half thousand years, from commonsense everyday knowledge. Even our interpretations of the best described languages of our own culture are very limited in scope, and still more limited in imaginative power. In this context it is interesting to see what happened in the C16 when western linguists first found themselves faced with exotic languages, and what was the impact of this on their own ideas about language. What happened, for example, when they were faced with the writing system of Chinese?

Perhaps the greatest single instance of the folk linguistic genius is the evolution of writing. In order for a language to be written down (to be 'reduced' to writing, in the very appropriate folk linguistic metaphor), it must at the same time have been analysed to a rather sophisticated level. In modern times this is often a conscious process, as happens when missionaries or other language planners design alphabets for unwritten languages;

but in the past it was usually unconscious, the cumulative effect of a number of small steps taken over a long period of time. In the course of this process (unlike the conscious efforts, which are often subject to the fads and fashions of linguistics of the time), a language usually gets the sort of writing system it deserves. So in the ancient world languages with rather tight syllabic structure tended to develop syllabaries; those with looser syllabic structure ended up with alphabets; and those with consonantal roots, the Semitic ones, evolved something in between the two. Of course the process is often affected by historical accidents; once a writing system evolves it takes on a life of its own and can be borrowed by others. Such 'accidents' range from trivial distortions like the demise of Old English 'thorn' (the *th* sign), which the Norman scribes could not write, to massive effects such as the adoption of the Chinese writing system for Japanese, a language to which it was quite inappropriate. Interestingly, Japanese ended up with a script which, though extremely complicated, represented rather well the complex pattern of language that resulted from large-scale borrowing - a symbiosis of two very different sub-systems, one indigenous and the other imported from Chinese.

Chinese is unusual in having a phonological structure that is not well suited either to syllabic or to alphabetic writing; the only natural analytic unit is the hemisyllable, and this did form the basis of Chinese phonological theory, in which the primary elements were 'initial' and 'rhyme'. But Chinese is very well suited to another kind of writing system altogether, one in which the written symbol represents, not any unit of sound but a unit of wording, the morpheme. The morpheme (it has no non-technical name in English, though it has of course in Chinese) is the elementary particle of lexicogrammar, the thing out of which words are built (the English word *kindness* consists of two morphemes, *kind* and *ness*). Chinese writing is morphemic. For a language like English, a morphemic script would be a monstrosity; but for Chinese it works very well. Now in classical Chinese, unlike the modern language, most *words* consisted of only one morpheme; so, taking the script as the representation of the classical language, which was the language of most written texts up to this century, it is not too far out to interpret it in terms of western categories as a word-symbolising, or 'logographic' script ('lexigraphic' would be more accurate). One thing that it is *not* is ideographic; indeed the notion of an ideographic script is self-contradictory, since a visual communication system becomes a script only when its symbols are mapped on to the elements of a language, and ideas are not linguistic elements. Ideographic symbols belong to that stage in the evolution of writing before it has *become* writing, though of course people may always continue to use ideograms for a range of special purposes.

European scholars knew nothing of Chinese writing until the mid-sixteenth century. At that time, reports and specimens of it began to filter through [see Firth, 1946; reprinted in Firth, 1957: 92-120, esp. 104 n.3]. The problem of understanding what kind of a script it was presented an unfamiliar challenge to their ideas about language.

In 1588 Timothy Bright published his book *Characterie, an arte of shorte, swifte and secrete writing by character*. In it he put forward a new writing system, or 'charactery', a highly original venture out of which two distinct intellectual traditions were to emerge, one of shorthand, the other of 'universal character'. Introducing his system, Bright related it to an interpretation of Chinese writing: 'Upon consideration of the great use of such a kinde of writing, I have invented the like: ... every character answering a

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word' [Firth, 1957: 103]. Bright's interpretation of the nature of the Chinese script was essentially right.

In contrast with Bright's formulation 'every character answering a word' is the following account by Francis Bacon written some fifteen years later, in the *Advancement of Learning* [1605]: 'the Chinese write in characters real, which express neither letters nor words, ... but things or notions'. Bacon's interpretation was wrong.

Matteo Ricci, the Jesuit scholar and missionary to China, wrote in his *Journals 1583-1610*, published in Latin translation in 1615, '[in Chinese] every word, just as every object, is represented by its own ideograph, or symbol, used to represent a thought ... every object has its own appropriate symbol' [Ricci, trans. Gallagher, 1953: 27]. Ricci seems to have been uncertain, though inclined towards the wrong interpretation.

So Bright's original insight was lost, and a mistaken view of the nature of the Chinese script became part of western folklore about China. It is intriguing to find the same issue raised over 200 years later in a lengthy dispute between the American philosopher Peter du Ponceau, who published *A Dissertation on the Nature and Character of the Chinese System of Writing* [Philadelphia, 1838], and Samuel Kidd, the first Professor of Chinese in the University of London, whose book *China, or Illustrations of the Symbols, Philosophy, Antiquities, Customs, Superstitions, Laws, Government, Education and Literature of the Chinese* appeared in London in 1841. Kidd expressed himself somewhat sarcastically at du Ponceau's expense; but in fact du Ponceau was right (he actually used the term 'lexigraphic'), while Kidd was simply repeating the folk view of Chinese writing which prevailed, then as now, in the west [Firth, 1949, reprinted in Firth, 1957: 156-172, esp. 163; Halliday, 1967: 9].

Not surprisingly, the folk linguistics of Chinese provides an unambiguous clue to the nature of the Chinese script. Just as, in English folk terminology, the word *letter* meant *both* the written symbol *and* what it stands for in the language (an element in the sound system, roughly a morphophoneme) so in Chinese the term zi 字 means *both* the written symbol (the character) *and* what it stands for in the language (in this case a morpheme - Chinese folk linguistics contains no term for 'word'). But the Europeans did not have the advantage of knowing Chinese, let alone Chinese linguistics. They lacked certain relevant information, such as the fact that Chinese characters have unambiguous readings, that synonyms are not written alike, and so on. So if Bright's insight was lost, this was partly through lack of evidence. More significant, however, was the fact that the ideographic fallacy fitted in perfectly with the mainstream of humanist thinking about language.

We must try to put ourselves back in the context of those times [Salmon, 1966]. The demise of Latin had left Europe without a linqua franca, just at a time when one was most needed; people were, obviously, going to speak in their own tongues, and the hope was that at least a written language might be found that was truly international. As Robert Boyle put it in a letter to Samuel Hartlib in 1646, 'I conceive no impossibility that opposes the doing that in words that we already see done in numbers' - in other words, we write a figure 5 but read it *cinque* or *cinq* or *fünf* or *five*;

why should we not write a unified symbol for tree and read it *albero* or *arbre* or *Baum* or tree, with everyone (in Cave Beck's words) 'reading out of one common language their own mother tongues'? It seemed a reasonable goal.

But there was much more at issue than the need for international communication. The deeper concern was with the nature of knowledge itself, and in particular the nature of systematic organised or scientific knowledge. The demand for a 'universal character' was a quest for the 'universal' in the medieval sense of a universal order of things, for a system of all there is to be known. The early humanist linguists inherited an intellectual tradition which contained, over and above the [illegible] Aristotelian philosophy and Ptolemaic cosmology of the established [illegible], a rich assortment of less reputable sources, including the [illegible] of memory and its associated cosmological theories. The medieval art of memory goes back to Simonides and the rhetoricians, who evolved it as a mnemonic device, the use of images as a way of remembering complicated lists of facts, as was necessary for example in the conduct of a lawsuit: but it had become interpenetrated with the hermetic tradition, with cabbalist and other mystical systems, and so tended to be regarded with some suspicion by the spiritual authorities. These systems introduced not only elements of sorcery, in which verbal magic played an important part, but also cosmologies which challenged the established view. Giordano Bruno, whose *Shadows of Ideas* and *Art of Memory* were imaginative developments of the C13 *Grand Art* of Raymond Lully, with its Homeric 'golden chain' linking all things to each other and heaven to earth, was burnt as a heretic in Rome in 1600 [Yates, 1964]. Other well known examples at the time were the 'memory theatre' of Giulio Camillo, and the 'method' of Peter Ramus [Pierre de la Ramée] [Org, 1958]. Ramus rejected the classical use of images as the basis of memory, regarding it as accidental and unsystematic, and took the art of memory out of rhetoric into logic, where 'every subject was arranged in "dialectical order" - that is, taxonomically [Yates, 1966] 212]. Frances Yates writes of him [*ibid*: 234]:

> *Though many surviving influences of the old art of memory may be detected in the Ramist "method" of memorizing through dialectical order, yet he deliberately gets rid of its most characteristic feature, the use of the imagination. No more will places in churches or other buildings be vividly impressed on the imagination. And, above all, gone in the Ramist system are the images, the emotionally striking and stimulating images the use of which had come down through the centuries from the art of the classical rhetors. The "natural" stimulus for memory is now not the emotionally exciting memory image: it is the abstract order of dialectical analysis, which is set, for Ramus, "natural", since dialectical order is natural to the mind.*

Not surprisingly, Giordano Bruno thought Ramus another arch-pedant, like Aristotle, and he attacked them both vigorously.

If the new scientific mode of thought was expected to pursue the same goal that had fired the medieval imagination, that of providing the golden chain, the key to the organisation of knowledge. And such a venture needed a systematic notation. This was where the significance of the Chinese script came in. The seventeenth century philosophical grammarians, men like Cave Beck, Francis Lodowick, Samuel Hartlib, Seth Ward and above all George Dalgarno and John Wilkins in England (many of them founder members of the

Royal Society), as well as Mersenne in Paris, Bisterfeld at Weissenberg and, subsequently, Leibniz, who faced the problem of organising, codifying and transmitting scientific knowledge, saw this clearly as a linguistic problem: knowledge was organised and stored in symbols. But they also inherited an immense suspicion of ordinary language, which in prevailing humanist ideology was regarded as at best arbitrary and at worst downright deceitful. Bacon had been one of the fiercest critics of language, deploring 'the false appearances that are imposed upon us by words'. Vivian Salmon comments: 'It is difficult to say when this distrust of words first appeared' [1966: 386]; but it is a recurrent theme of humanist scholarship. In part, no doubt, it was a reaction against what were regarded as the excesses of late medieval grammar, which like other aspects of medieval scholarship tended to become rather rarefied: the University of Paris had attempted to proscribe the teaching of grammar in 1515 (the year Ramus was born). But it was also a deeply-felt attitude to language itself.

Words were dangerous: not only because they were ambiguous, and led to strife, though this is a familiar complaint, but also because they were seductive. They presented a false appearance of reality, and had to be cleared out of the way so as to expose the true reality which lay beyond. Scientific endeavour could be advanced only by attending to *things*, and to the logic of the relations between things: by observation, not by talk. Ideally it should have been possible to do away with words altogether, and put things in their place; and this must have been a contemporary impression of what it was that was being propounded, because the attitude is caricatured by Swift. In the Voyage to Lagado Gulliver visits the School of Languages, where he finds

> *... a Scheme for abolishing all Words whatsoever ... since Words are only Names for Things, it would be more convenient for all Men to carry about them, such Things as were necessary to express the particular Business they are to discourse on.*
>
> *Gulliver's Travels*, Collins ed., 1953, pp.203-4

The passage continues:

> *And this Invention would certainly have taken place, to the great Ease as well as Health of the Subject, if the Women in Conjunction with the Vulgar and Illiterate had not threatened to raise a Rebellion, unless they might be allowed the Liberty to speak with their Tongues, after the Manner of their Forefathers: Such constant and irreconcileable Enemies to Science are the common People.*

Since, however, we have to put up with words, the best we can do is to reduce their arbitrariness. Words should match things, in some way or other representing their true nature. For this purpose, a 'universal character' (that is, a writing system) was not enough: there had to be constructed a new 'philosophical language' in which words would represent things in some natural, non-arbitrary manner. This is a recurrent aspiration of those who reflect on language - the hope of finding some natural connection between meanings and sounds: it is one of the two opposing views on linguistic evolution that are put forward by Plato in the *Cratylus*. It is often ridiculed by linguists,

who insist (rightly) on the essential arbitrariness to be found at this point in the system. Yet it is less absurd than it might seem - there can be varying degrees of non-arbitrariness built in to the linguistic coding process. One of those who thought it possible to create such a connection was Mersenne, who searched for precedents in existing languages in the form of what today would be called 'phonaesthetic' patterns, where a particular sound is regularly associated with a particular area of meaning, like the *-ump* in *hump, bump, lump, rump, plump, stump* and *clump*. Phonaesthetic series display a kind of non-arbitrariness, and they happen to be a particular characteristic of English. Nevertheless it is difficult to create a whole vocabulary along these lines; and what those who were inventing new languages in fact set out to do was to construct words so that they reflected the *relations between* things (the 'dialectic order' of Ramus). This is a notable feature of the two most successful philosophical languages that were actually constructed, those by George Dalgarno [Ars Signorum, 1661] and Bishop John Wilkins [*An Essay towards a Real Character and a Philosophical Language*, 1668]. It did not seem to occur to the proponents of such schemes, however, that there was any conflict between this activity of inventing new languages, which if successful would have required considerable time to be spent in learning them, and the desire to avoid wasting time on language, expressed for example by Bishop Wilkins himself in what he had written a quarter of a century earlier: 'that great part of our time which is now required to the learning of words might then be employed in the study of things' [*Mercury, or the swift and secret messenger*, 1641].

Most of the 'real character' projects stopped short of constructing words - that is, of giving phonetic values to the symbols, and rules for their combination; but they did represent conscious attempts at a universal symbolism, with (in the words of Seth Ward) 'symbols ... for every *thing* and *notion*'. And this idea is in a direct line of descent from the classical and medieval memory systems. Frances Yates comments [1966: 376]:

> *... a whole group of writers ... laboured to found universal languages on "real characters" ... The universal languages are thought of as aids to memory and in many cases their authors are obviously drawing on the memory treatises. And it may be added that the search for "real character" comes out of the memory tradition on its occult side. The C17 universal language enthusiasts are translating into rational terms efforts such as those of Giordano Bruno to found universal memory systems on magic images which he thought of as directly in contact with reality.*

And when Leibniz formed his project for the 'Characteristica', a universal language with a calculus associated with it, he explicitly referred to the Cabbalist and Lullist systems, as well as to Chinese writing, which he described as pictographic and 'in the nature of memory images'. (Despite the interest in pictographic symbols, and in the 'natural' relation between words and things, it is noteworthy that the characteries that were actually devised - including the earliest, that of Timothy Bright - showed little tendency to employ iconic symbols, pictorial or otherwise. The symbols themselves were entirely abstract and conventional. What was 'natural' was their taxonomic arrangement into primary signs, for genera, and secondary signs and diacritics for the descending subcategories.)

As a systematization of all knowledge, Wilkins' monumental universal language must be counted a failure. It was not a description of knowledge at all. But it was a description of meaning. It was in fact a brilliant essay in lexical semantics, revealing the principles on which languages organise names for things. As such it had a considerable impact on our ideas about language - not least because it was the basis on which Peter Mark Roget constructed his *Thesaurus* 150 years later. It is in a way ironical that the fundamental insights of an intellectual movement that explicitly sought to minimise the role of language in scientific thought should turn out to be, first and foremost, insights into language itself, into the taxonomic principles of naming which form an essential element of semantic structure. And both these aspects of the movement's ideology have gone into our present-day ideas about language: the understanding of the organisation of word meanings on the one hand, and on the other hand the curious image of language as distortion of reality, as a barrier to the clear-sighted apprehension of true relationships which are relationships among things. One only has to consider modern attitudes on the subject of language in education to realise how deeply this second, negative view has penetrated into our thinking about language.

French rationalist grammar, which was a continuation of the scholastic tradition, and English universal semantics, with its origins in a rather different strand in medieval thought, represent two of the main trends in linguistics in seventeenth century Europe. In the eighteenth century, the picture was beginning to change. The ethnographic approach was now coming to the fore, as linguists turned their attention to the vernacular languages of Europe and to the languages of Asia, Africa, the Pacific and the New World; and by the nineteenth century this had become the dominant perspective on language. It was primarily the ethnographic interpretation that was elaborated in the major European schools of the first half of the present century - the Prague school, the London school, and also the highly theoretical 'glossematic' school of Copenhagen - as well as in the anthropological linguistics of Boas and Sapir in America. The development of American structuralist linguistics - a movement that was notably different from what was called 'structuralism' in Europe - began to reassert the philosophical approach; and when Chomsky, bringing to bear the methods of logical syntax, showed that it was possible to formalise the American structuralist model of language, in what was the first successful attempt at representing natural language as a formal system, this became once again the dominant perspective. Linguistics became philosophy of language, as it has done from time to time throughout its history; and grammar became logic.

If Chomsky had admitted that he was building on the work of his predecessors, the ensuing dialogue between philosophers and ethnographers of language could have been very fruitful and rewarding. Instead he presented his theories in the form of a violent polemic aimed directly at those whose model of language he was taking over; in the course of this he so misrepresented the work of his other contemporaries and forerunners that for the following decade and more it was impossible for the two groups to engage in any dialogue at all. Probably never before in the history of ideas about language have the two views, of language as resource and language as rule, been made to seem so incompatible. The difference between the two was presented as an opposition between a concern with language as system and a concern with language as behaviour (competence and performance, in the Chomskyan terminology). In fact, however, both approaches are equally concerned with the system - with explaining the fundamental nature of language. Where they differ is in how they see the relation *between* system and behaviour. It soon came to be realised that the price to be paid for the Chomskyan type of formalism was much

too high: it required a degree of idealization so great as to reduce natural language back to the status of an artificial syntax. Once its claims for psychological reality could no longer be sustained, transformation theory lost its original glamour; and today we are witnessing a retreat from these extreme positions (the field of child language studies provides a striking instance of this) and an attempt to reconcile the philosopher's demand for being explicit with the ethnographer's demand for being relevant. There is still however a long way to go.

One of the most significant theoretical developments of twentieth century linguistics since Saussure is what is known as variation theory - significant because, among other things, it involves the discovery of new facts about language. This derives from the highly original work of William Labov in the field of urban dialectology, the study of the speech patterns of big city communities, which he started in New York in the early nineteen-sixties. The essence of variation theory is the notion that language is inherently a variable system, so that even within one individual speaker variation is the norm rather than the exception. This theory is throwing new light in some unexpected quarters, particularly on certain fundamental processes involved in linguistic change [1974]. As might be expected, there are two versions of the theory: one (that of Bailey & Bickerton) philosophical, rule-based, deterministic and couched in terms of what people know, individually; the other (that of Cedergren and the Sankoffs) ethnographic, resource-based, probabilistic and couched in terms of what people can do, socially. And again as throughout history, it is the rule-oriented thinker who insists that the two are incompatible: who says, in effect, 'You may agree with me, but I don't agree with you'. As in the history of the individual, so in the history of ideas it is the secondary, restructured reality that has to be made to exclude the primary one, not the other way round.

So it is made to appear by the successors to the formal tradition that, in order to accept language as rule, one has to reject language as resource. This lack of symmetry between the two ideologies is very striking. The softer view can accommodate the harder - the rhetorician can believe in logic, the anomalist in analogy, the empiricist in reason - but not the other way round. It is as if the rule-giver, the rough-minded member of the pair, has to maintain as part of his conceptual framework the view that his is the *only* valid model of the universe, the sole truth about the nature of human knowledge and scientific enquiry.

But there is another angle. We can recognise a thread of ideas that, whether or not it will serve for any kind of a synthesis, at least avoids the schizophrenia that seems to characterize modern thinking about language. Let us make one final brief excursion into classical times. There was one mode of thought in the ancient world which perhaps more than any other provides the ideological foundations of modern linguistics, that of the Stoics. (The point has been made that their founder, Zeno, was not a native speaker of Greek, and so had been through the chastening experience of learning Greek as a Second Language.)

The records of Stoic thought are scanty, preserved only in the writings of others; but enough remains to show that they achieved a new perspective on language. They did so by specifically focussing on language as an object of investigation, while simultaneously placing it in a broader intellectual context. Here is Robins' summary:

> *The Stoics ... regarded language as a natural human capability, to be accepted as it was, with all its characteristic irregularity. They took a broader view of what was good Greek than the analogists, and were interested in linguistic questions not principally as grammarians and textual critics; they were philosophers for whom language served as the expression of thought and feeling and for whom literature held deeper truths and insights veiled in myth and allegory.*

The Stoics interpreted language in its own terms. They took the written symbol, and analysed it into three aspects: it had a shape, a value and a name. The first letter of the alphabet, for example, has a written shape a , a phonetic value [a], and a name 'alpha'. They then used this analysis as a metaphor for the interpretation of linguistic form, and identified the three aspects of a linguistic sign: the sign itself, in its outward manifestation; the value, or meaning; and the thing meant σημαῖον, σημαινόμενον, πράγμα - later the term σημαῖον was taken over to mean the whole complex of form and meaning, 'sign' in the modern sense, and the form, now in the sense of 'wording', was designated by λεκτόν).

In introducing the notion of the sign the Stoics opened the way to an interpretation of language in terms of what we would now call semiotics. In the early years of this century the Swiss linguist Ferdinand de Saussure took the *sign* as the organising concept for linguistic structure, using it to express the conventional nature of language in the phrase 'l'arbitraire du signe'. This has the effect of highlighting what is, in fact, the *one point* of arbitrariness in the system, namely the phonological shape of words, and hence allows the *non*-arbitrariness of the rest to emerge with greater clarity. An example of something that is distinctly non-arbitrary is the way different *kinds* of meaning in language are expressed by different *kinds* of grammatical structure, as appears when linguistic structure is interpreted in functional terms.

A distinctive feature of the present decade has been the development of semiotics as a mode of thinking, not just about language but about all aspects of culture. From the semiotic standpoint culture is, as Keith Basso expressed it, 'a body of knowledge which members use to interpret experience and to structure behaviour'. A culture is a meaning potential of many modes; it comprises many semiotic systems, ranging from kinship systems and modes of commodity exchange through dance and music, modes of adornment and display, architecture and art forms, imaginative literature, mythology and folklore. These are the symbolic resources with which people discover, create, and exchange meanings.

Semiotics is not a discipline, defined by subject-matter. It is a way of interpreting things. In Pyatygorsky's words 'When I analyse anything from the point of view of what it means, this is a "semiotic situation"'; and such an analysis becomes more significant the more we are able to find similarities among different semiotic systems. Umberto Eco wrote, in his book *Absent Structure*,

> *the hypothesis from which [semiotics] starts is that all cultural phenomena are really systems of signs ... it should perhaps be considered as an interdisciplinary domain within which all cultural phenomena are analysed against the background of an "obsession" with communication.*

(I should rather say, with meaning.)

Semiotics evolves out of the investigation of language as object. It began to evolve in the west when the Stoics replaced the earlier view of language as *instrument* (an instrument for the study of something else, either rhetoric, with the sophists, or logic, with Aristotle) by one of language as *object* - as an object of study and interpretation in its own right. This opens the way to an understanding of meaning, and of systems of meaning with varying modes of realisation. Once the semiotic perspective develops as an intellectual stance, it can be so to speak turned back on language, so that language is thought of as one among the many semiotic systems that constitute the culture. Its real uniqueness then begins to emerge. Language is a special kind of semiotic system in that it typically functions in the realisation of other semiotic systems; it is a 'vehicle for higher-order semiotics', in Sinclair's words.

This is certainly the context in which language evolved. At the same time, however, once having come into existence in this way, language takes on an independent reality and creates new meanings of its own. In particular, it creates a new type of phenomenon, a new order of reality, called information, which then becomes a commodity to be exchanged. We live in an age in which the exchange of information is fast replacing the exchange of goods-and-services as the primary mode of social behaviour.

So much could be made to follow from this point that it should perhaps have been the beginning of this exploration rather than the end. Instead of beginning again, however, I shall make three final observations. The first is, that the semiotic perspective enables us to see language in the context of the social construction of reality. Language is the principal means through which we create the world in which we live. This is of course a world of multiple realities, in Alfred Schutz' terms, each with its own 'finite province of meaning'. And this, in turn, is the significance of seeing language as a variable system. Variety in language is functional, not only directly but also symbolically: it serves both as vehicle and as metaphor for the manysidedness of the cultural reality [Douglas, 1973].

Secondly, related to this is the goal of understanding the diversity of human languages; not seeing them all as deviations from some one idealized logic, that of western culture, but as each embodying its own logic, and also its own rhetoric, and its own esthetic. At the end of 1974 UNESCO held a Symposium, in Nairobi, on interactions between linguistics and mathematical education. Linguists and teachers of mathematics, mainly from countries of Africa, came together to discuss questions of learning mathematics in languages with very different natural logics and semantic styles - different from those of European languages; and it became obvious how ineffective it could be simply to translate textbooks from English into Yoruba or Swahili or Bemba, textbooks which were unconsciously based on the folk mathematical concepts that exist in English, instead of designing new approaches based on the rather different mathematical concepts which are embodied in these languages.

Finally, a discussion of ideas about language should not be thought to suggest that these ideas are isolated from ideas about everything else. Our picture of language is part of our picture of the world. In particular it is part of our picture of the world of meanings; and the value of the semiotic interpretation is that it shows us how the world of meanings is structured and what its constants are. We started with the child, so we will end with the child. Long before he can *talk* about meaning, a child is engaging

in acts of meaning; even before he has a mother tongue, he is using language to organise his view of the world (and himself), and to interact with the people around him. By the age of eight or ten months he has a very rich idea of what he will be able to achieve through learning to mean. It is to be hoped that our adult ideas about language will be rich enough in turn, so that they help rather than hinder him in his efforts towards that goal. For what, as the Red Queen said, is the use of a child without any meaning?

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